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Ship Masters' Association of
the Great Lakes.
A Directory of names,
pennant numbers

A

DIRECTORY

OF NAMES, PENNANT NUMBERS AND ADDRESSES
OF ALL MEMBERS OF THE

International

Ship Masters' Association

of the Great Lakes

Also a List of Vessels of the Great Lakes, American and Canadian, with Names and Addresses of Owners

Other Information of a Miscellaneous Nature of Interest in Shipping Circles on the Great Lakes

APRIL, 1920

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M. F. MORGAN
CHICAGO

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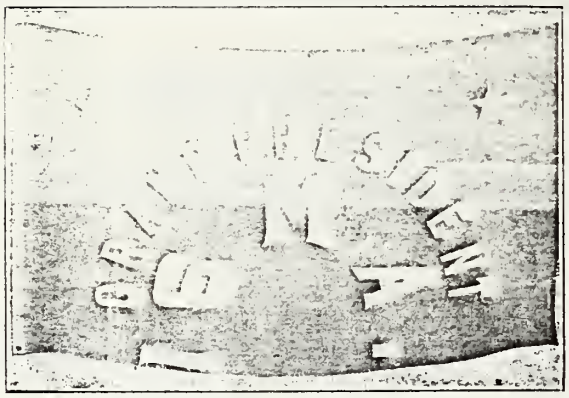
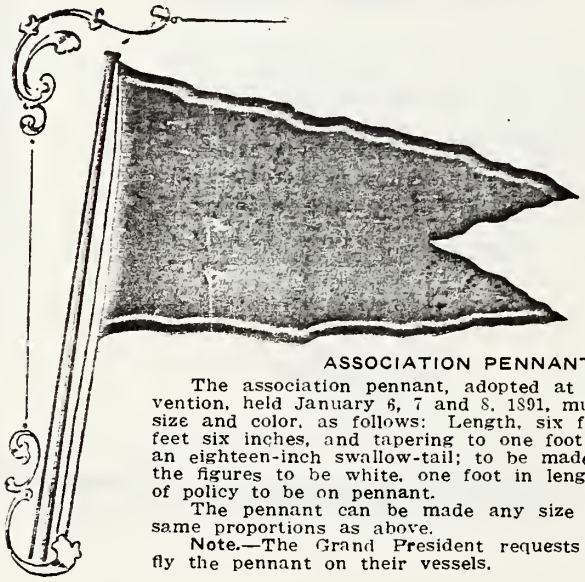


GRAND PRESIDENT'S FLAG

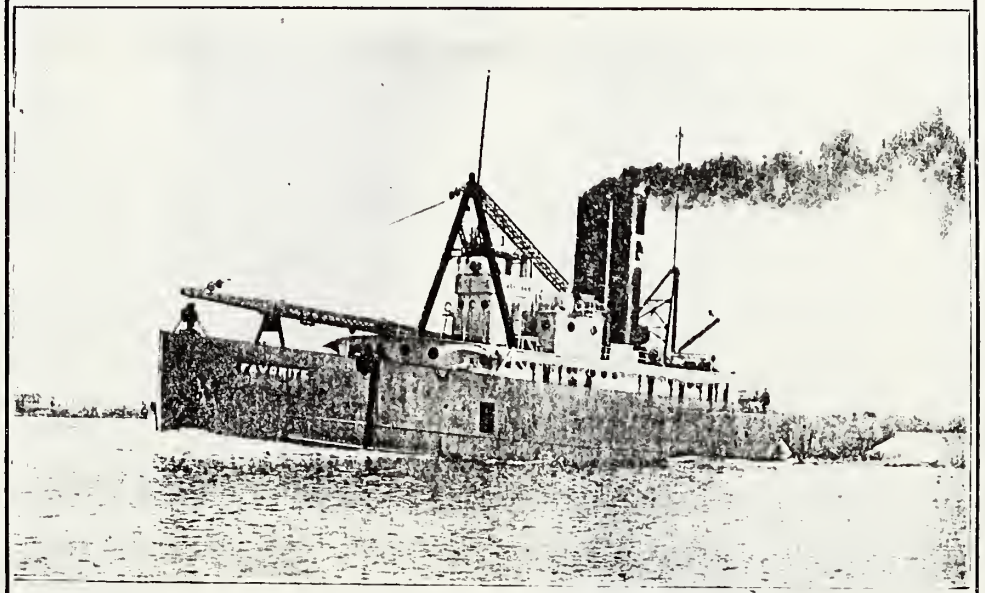


ASSOCIATION PENNANT

The association pennant, adopted at the Buffalo convention, held January 6, 7 and 8, 1891, must be of uniform size and color, as follows: Length, six feet; width, three feet six inches, and tapering to one foot six inches, with an eighteen-inch swallow-tail; to be made of red bunting, the figures to be white, one foot in length. The number of policy to be on pennant.

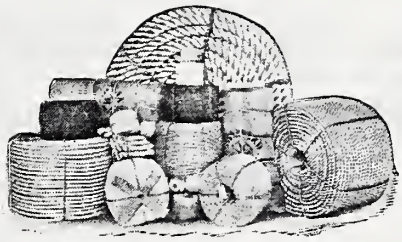
The pennant can be made any size by giving it the same proportions as above.

Note.—The Grand President requests all members to fly the pennant on their vessels.



GREAT LAKES TOWING AND WRECKING COMPANY

WHITLOCK Guaranteed CORDAGE



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South Chicago 1354

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CAPT. L. C. DeNIKE, Grd. Pres.
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Highland Park. Mich.

CAPT. J. D. BAIRD. Grd. Treas.
605 Main Street
Marine City - Mich.

CAPT. M. F. MORGAN. Grd. Secy.
2115 Summerdale Ave.
Chicago. Ill.

MEMBERS GRAND LODGE

Top row standing left to right. Cap't. S. V. Anderson, Cap't. A. W. Stalker, Cap't. D. M. Crooker. Cap't. Jos. R. Acton. Cap't. Richard Jackson, Cap't Charles Rinn, Cap't Richard O'Connor.

Bottom row sitting left to right. Cap't. Jos. R. Brownell, Cap't. Fred R. Slater, Cap't. Lee C. DeNike, Cap't. M. F. Morgan, Cap't. John. D. Baird, Cap't. Wm. J. Crosby, Cap't. Jas. J. Ferguson.

Grand Lodge Officers
1920

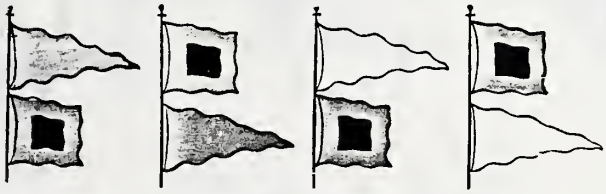
Grand President .....Lee C. DeNike
147 Highland Ave., Highland Park, Mich.
1st Vice Grand President .....Fred R. Slater
5829 Johns Ave., Superior, Wisc.
2nd Vice Grand President .....Jos. R. Acton
22 Lythe Ave., Buffalo, N. Y.
Grand Treasurer ..... John D. Baird
605 Main St., Marine City, Mich.
Grand Secretary .....M. F. Morgan
2115 Summerdale Ave., Chicago, Ill.

Chaplain ..... Joseph R. Brownell
Marshal ..... Charles Rinn
Warden .....S. V. Anderson
Sentinel ..... Jas. J. Ferguson
1st Past Grand President .....Alex. Clark
2nd Past Grand President .....C. E. Benham
3rd Past Grand President .....Geo. McCullough
4th Past Grand President .....W. E. Rice
5th Past Grand President .....Henry Leisk
6th Past Grand President .....A. J. McKay
7th Past Grand President .....Chas. H. Hubbard
8th Past Grand President .....J. A. Ward
9th Past Grand President .....W. D. Hamilton
10th Past Grand President .....H. H. Parsons
11th Past Grand President .....Jas. A. Calbick
12th Past Grand President ..... W. D. Ames
13th Past Grand President .....M. G. McIntosh
14th Past Grand President .....Jno. H. McDonald
15th Past Grand President .....Jno. H. Sinclair
16th Past Grand President .....Jas. G. Herbert
17th Past Grand President .....Chas. T. Bronson
18th Past Grand President .....Millard M. Stewart
19th Past Grand President .....C. J. Autterson
20th Past Grand President .....A. C. Smith
21st Past Grand President (Three Consecutive Terms) Wm. J. Crosby
22nd Past Grand President .....W. L. Girardin

Past Grd. Pres. C. T. Bronson, Henry Leisk, A. J. McKay, Chas. H. Hubbard, M. G. McIntosh, C. E. Benham, Jas. Calbick, W. E. Rice, Millard M. Stewart, W. D. Hamilton, Wm. J. Crosby, J. H. McDonald, A. C. Smith, H. H. Parsons, C. J. Autterson, Jas. G. Herbert, Alex. Clark, Wm. D. Ames, Geo. McCullagh, W. L. Girardin, J. A. Ward.

STORM SIGNALS

As displayed on the Great Lakes at United States Weather ureau Stations



N. E. Storm. S. E. Storm. N. W. Storm. S. W Storm.

Hurricane or very severe storm

Information Signals (red or white pennant) displayed alone have been discontinued.

DISPLAY SIGNALS.

UNITED STATES. Small Craft Warning. A red pennant indicates moderately strong winds will interfere with safe operation of small craft. No night display.

Violent Storms are indicated by day signals comprising a square red flag with black square center and either a red or white pennant, and by night signals composed of lanterns, either red or red and white; the color and position of the pennants or lights showing the initial direction of the wind, as follows:

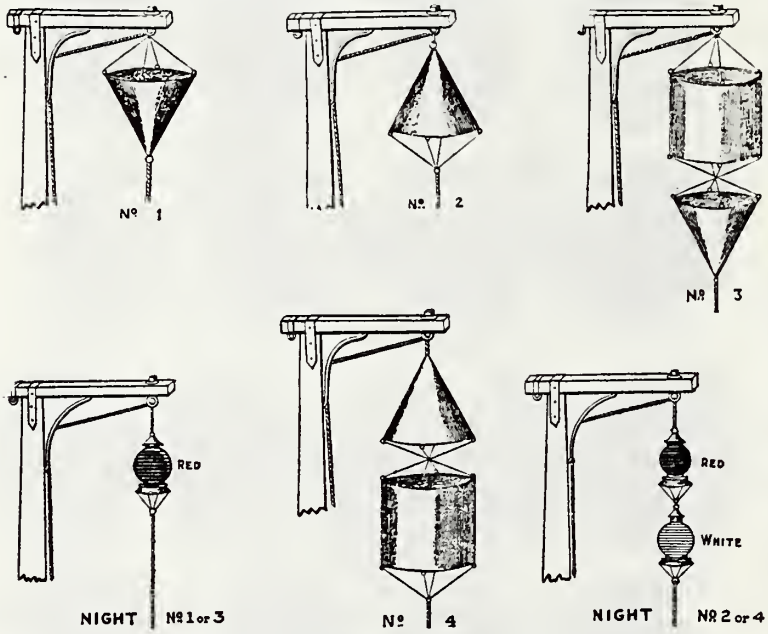
Northeast Storm. Red pennant above square flag; or two red lanterns, one above the other.

Southeast Storm. Red pennant below square flag; or one red lantern.

Southwest Storm. White pennant below square flag; or white lantern below red lantern.

Northwest Storm. White pennant above square flag; or white lantern above red lantern.

Hurricane Warning. Two square flags, one above the other; or two red lanterns with white lantern between; indicates an extremely severe or dangerous storm.



CANADIAN STORM WARNINGS

Fig. No. 1.—This signal indicates the probability of a gale, at first from an Easterly direction.

Fig. No. 2.—This signal indicates the probability of a gale, at first from a Westerly direction.

Fig. No. 3.—This signal indicates the probability of a heavy gale, at first from an Easterly direction.

Fig. No. 4.—This signal indicates the probability of a heavy gale, at first from a Westerly direction.

The night signal corresponding to Nos. 1 and 3 is a red light.

Night signal corresponding to Nos. 2 and 4 is a red light above a white light.

Note I.—Mariners will be able to obtain further information from Signal Agents, or by consulting the daily forecasts.

Note II.—Mariners must always bear in mind that the storm signals do not necessarily mean that storm will occur at the place where the signal is displayed, but that one is expected either there or within such a distance that vessels leaving port would be liable to be caught in it.

R. F. STUPART, Director.

Meteorological Office, Toronto.

The International Ship Masters' Association

Its Aims and Objects
Who Are Its Members

Extracts from Constitution

Article I—Purposes of the Association.

Sec. 2. The purpose of this Association shall be to improve and elevate the characters of its members, to create a brotherly feeling, to visit the sick, render necessary assistance in case of death, to provide for a beneficiary fund, and to pay the same to the family of deceased members or as may be otherwise directed.

Article V—Membership.

Sec. 1. Every applicant for membership in this Association shall hold a master's certificate issued by the United States or Canadian Government, in force at the date of his becoming a member. He must also have been actively engaged in sailing within a period of two years prior to the date of his application for membership.

EARLY HISTORY OF INTERNATIONAL SHIP MASTERS' ASSOCIATION

By John H. Ivers

In the winter of 1886, the First Mate of the Str. Boston of the Western Transit Company of Buffalo, New York, died. Capt. John H. Ivers, then master of the Str. Fountain City, a propeller in the Western Transit Company, went to the home of the family of his departed friend to offer his services and his sympathy. The widow very reluctantly told Capt. Ivers that she had no money and asked him for the loan of $50.00 to defray the expense of burying her husband. The Captain, not having that amount with him, told the widow that he would return with the amount later that evening. After leaving the house, Capt. Ivers went to the store of Felthouse & Russel, a vessel supply house located on Main Street, and a place where the licensed officers of steamboats used to congregate, and there he met several masters and mates and told them about the circumstances of the family of the deceased mate. Among those present were Capt. Martin Niland, Capt. John Disset, Capt. George Dogg, Capt. Wm. Dickson, Capt. James Condon, and Capt. James Drake.

Capt. Ivers told his associates that this family needed money and would not be able to pay it back. Capt. Niland then took off his cap, placed a five dollar bill of his own into it, and passed it around; those present at that time, and those who came in later, contributed and in a short time the donations amounted to $125.00. Capt. John Ivers, then master of the Str. Fountain City, and Capt. James Condon, then master of the Str. Arctic, were detailed to take the $125.00 to the widow, which they did that evening. The widow was very grateful and began to cry, saying that she did not know how she would repay the kindness and that she would pay the money back even if she had to take in washings and that it was her wishes and prayers that no other widow of a Ship Master would be placed in like circumstances upon the death of her husband. The Captains assured her that there would be nothing to pay back as this money was a donation from the friends of her husband, who were employed on the line boats.

After Captain Ivers and Capt. Condon returned to the store of Felthouse & Russel, a general discussion arose about forming a little society among members of the profession, where in case of the death of a member the widow or beneficiary would receive $100.00, each member being assessed his portion.

This being the last of the week it was agreed that a meeting be held on the following Tuesday evening in a small hall above the vessel suppy store (the use of the hall being donated by the owners of the store), for the purpose of organizing a beneficial association

Fifteen licensed officers of the line boats assembled in the hall above the store on the following Tuesday evening and Capt. Wm. Dickson was elected chairman, and later the same evening was elected president; and Capt. James Condon was elected secretary. Capt. John Disset was appointed a committee of one to take the necessary steps to secure a charter for this new society, then known as the Excelsior Marine Benevolent Association.

The managers and owners of the different steamboat lines, thinking that this new association was a labor organization later to become affiliated with the Knights of Labor, objected to their masters and mates joining it. But when it was explained to them the purpose of this organization, and that it was never to be a labor

organization and always to be a Benevolent Association, they withdrew their objections and offered to help make up the $100.00, that was to go to the beneficiary on the death of a member, in case there was a shortage.

A meeting was held every Tuesday evening until the charter was secured from Albany, New York. After securing the charter, a discussion arose about numbering the members as they joined the Association. Owing to the fact that Capt. Niland had rendered the new association such valuable service, along the line of creating a favorable opinion of this Association among the vessel managers and owners, the members thought it fitting to honor him by giving him Number 1.

Capt. John Disset thought that if honors were being given that he, too, should be given a small number in place of Number 15. None of the members cared to give up their numbers until Capt. John Ivers spoke up and said, "I will change with Capt. Disset and take Number 15 instead of Number 4."

Later in the spring, when it became known that the owners and managers did not object to their licensed men belonging to this Association, seventeen more men were taken in before the opening of navigation, making a membership of thirty-two, the members then thinking themselves in a flourishing condition.

The wife of Capt. Disset (who was formerly a school teacher) with the aid of an attorney (who was a friend of the family) drew up the first constitution and by-laws and also secured the first ritual. This constitution, by-laws and ritual were changed in January 1889, when the Grand Lodge was formed in Buffalo.

Capt. John Ivers, in the spring of 1887, left the employ of the Western Transit Company and went as master of the Str. Colorado which was purchased by F. W. Botsford of Port Huron. Owing to the fack that the Colorado was to run between Port Huron and Duluth, the Captain moved back to Port Huron.

In the winter of 1887 and 1888, in order to increase the membership of Buffalo Lodge, Capt. Ivers solicited new members in Port Huron; but the men of Port Huron thought they should have a lodge of their own in town. Capt. Ivers then wrote Capt. Alexander Clark, who was at that time President of Buffalo Lodge, for information in regard to forming a new lodge in Port Huron. Capt. Clark's reply was that he would take the matter up with the officials in Albany, New York, from whom they had secured the Buffalo charter.

In due time, Capt. Ivers of Port Huron received word from Capt. Alexander Clark of Buffalo that a lodge could be organized in Port Huron as a branch of the Buffalo Lodge, to work under the Buffalo Lodge's charter; and that if twenty prospective members could be secured he would come to Port Huron and organize Lodge Number Two. In a few days he came to Port Huron and organized with a charter membership of twenty-two.

Capt. John H. Ivers, being still a member of Buffalo Lodge, and, consequently not eligible to be elected president of Port Huron Lodge, Capt. Frank Danger was elected president and Capt. Wm. Hutchinson, secretary. There were no other officers at that time.

Capt. Ivers then withdrew from Buffalo Lodge, and joined Port Huron Lodge, becoming its president for the winter of 1888-1889 and was also delegate to Buffalo in the year 1889 at the time that the Grand Lodge was formed with Capt. Alexander Clark its first president, the Grand Lodge still retaining the name E. N. B. A. which about three years later was changed to Ship Masters' Association.

At the first meeting of the Grand Lodge it was decided to form a subordinate lodge in other lake ports, and then came Chicago, Number Three, and on as the numbers indicate.

TO BE CONTINUED IN OUR NEXT EDITION.

ADDRESSES OF SECRETARIES.

Lodge No.		
1	Jos. M. Green	529 Woodlawn Ave., Buffalo, N. Y.
2	D. M. Sinclair	2037 Military St., Pt. Huron
3	M. F. Morgan	2115 Summerdale Ave., Chicago
4	C. L. Allan	10 Forest City Bank Bldg., Cleveland
6	Jno. McSweeny	459 Maryland Ave., Milwaukee
7	C. G. Merckel	122 Stanton St., Detroit
8	L. M. Baird	330 Woodworth, Marine City
9	E. G. Ashley	206 Chamber of Commerce, Toledo
10	J. J. Powers	85 Elizabeth St., Ogdensburg, N. Y.
11	J. P. Stewart	Algonac, Mich.
12	Albert Swenson	1001 Torrey Bldg., Duluth, Minn.
14	Jos. C. Burk	206 4th St., St. Clair, Mich.

ASSOCIATION HEADQUARTERS.

1 Buffalo, N. Y. ..... 202 Main St.
Saturdays, 2:30 P. M.

2 Port Huron, Mich.....Jenkinson Block. Military and Water Sts.
Thursdays, 2:30 P. M.

3 Chicago, Ill. .....New Quarters in Fall
Thursdays, 2:00 P. M.

4 Cleveland, Ohio ..... 307 Superior Ave., N. W.
Fridays, 2:00 P. M.

6 Milwaukee, Wis. .... Chamber Com. Bldg., Michigan & Broadway
Thursdays, 2:00 P. M.

7 Detroit, Mich. ..... 316-318 Broadway, Market Bldg.
Tuesdays, 2:30 P. M.

8 Marine City, Mich....Zimmerman Block. Jefferson & Water Sts.
Saturdays, 7:30 P. M.

9 Toledo, Ohio ..... Chamber of Commerce Bldg.
Wednesdays, 7:30 P. M.

10 Ogdensburg, N. Y. ..... 61 Ford St.
Wednesdays, 7:30 P. M.

11 Algonac, Mich. ..... J. P. Stewart Bldg.
Thursdays, 2:30 P. M.

12 Duluth, Minn. ..... 1001 Torrey Bldg.
1st and 3rd Tuesday Evenings

14 St. Clair, Mich. .....Beyschlag Block, Riverside & Jay Aves.
Tuesdays, 2:00 P. M.

A Letter To Members of the Association.

Brothers:—

Our obligation "Strive to Promote the Welfare of our Association" should make us all think and ask ourselves "What are we doing to keep that obligation?"

Do we believe it is sufficient just to pay our Dues and Assessments when they become due, or is there not something else that we could do to make the welfare of our members a little bit better than at present?

We should not think only of the protection we give our loved ones at home by being a member of the Association, but we ought to feel proud of having the opportunity of contributing our little bit, to the wife, mother or children of a brother who passes from amongst us.

At times we have paid a beneficiary who did not need it, but in the great majority of claims paid it has helped to place the dependents in a position to adjust themselves to the altered condition of their incomes, and before "TIME" (the great softener of all sorrow) has its work.

What do we do to one another during the season of navigation? Is there not some little thing said or done that would have been better by far left unsaid or undone? Would it not be better to live the time honored motto "The Faults of our Brothers write upon the sands, but their virtues write upon tablets of love and memory."

Our Meeting Places in the winter time are a source of pleasure for all those who meet there. Let us tell Masters, and Mates who have Master's papers, what the possibilities are if all men holding a Master's license became one of us.

We should induce our Mates to become Members just as soon as they receive their Master's license.

By doing these things, don't you think you would be "Striving to Promote the Welfare of this Association?"

Yours fraternally,

CAPT. C. L. ALLEN, Secretary.

Cleveland Lodge No. 4, I. S. M. A.

LIST OF ACTIVE MEMBERS

Pennant	Lodge	Name	Address	City
1705	1	Acton, Jos. R.	22 Lythe Ave.	Buffalo, N. Y.
1867	1	Abel, Wm.	Queen St.	Port Dalhousie, Ont.
1892	1	Apsey, Arthur A.	45 Harvard Pl.	Buffalo, N. Y.
1700	3	Anderson, Alex. A.	3037 Clifton Ave.	Chicago, Ill.
1498	3	Anderson, Sigfrid	2208 N. Kimball St.	Chicago, Ill.
1701	3	Atkinson, G. E.	1904 N. Laundale Ave.	Chicago, Ill.
2166	3	Anderson, H. E.	1950 Lincoln Ave.	Chicago, Ill.
2500	3	Anderson, Chas.	South Manitou Island,	Mich.
307	4	Ames, Wm. D.	15514 Detroit Ave.	Lakewood, O.
570	4	Anderson, Joseph.	7108 W. Clinton Ave.	Cleveland, O.
1038	4	Allen, Samuel C.	1403 W. 65th St.	Cleveland, O.
1116	4	Allen, C. L.	10 Forest City Bk. Bldg.	Cleveland, O.
1321	4	Anderson, Mathew.	1064 E. 99th St.	Cleveland, O.
1368	4	Anderson, Chas. A.	Wooster Road	Rocky River, Ohio.
1641	4	Anderson, P. A.	N. Ridge Road	Geneva, Ohio.
1816	4	Allen, Merton G.	2050 Evelyn Ave.	Lakewood, Ohio.
2337	4	Armsbury, W. F.	2 Pennsylvania Ave.	Ashtabula Harbor, O
488	6	Anderson, O. N.	120 Temple Ct. Bldg.	Minneapolis, Minn.
1513	6	Anderson, Gus.	Str. Argus,	Detroit, Mich., River Station
1940	6	Alexander, Algie		Kewaunee, Wis.
2170	6	Andrews, Andrew.	2703 Chestnut St.	Milwaukee, Wis.
2998	6	Ashby, Harry	528 W. 9th St.	Manitowoc, Wis.
253	7	Armstrong, B.	207 Blain Ave.	Detroit, Mich.
671	7	Ashley, W. A.	963 Bartlett Ave.	Milwaukee, Wis.
1411	7	Anderhalt, L. P.	137 Blain Ave.	Detroit, Mich.
2097	7	Atkinson, Chas. L.	630 Virginia Pk. Ave.	Detroit, Mich.
854	9	Ashley, E. G.	206 Chamber Commerce	Toledo. O.
1916	9	Adams, Joseph	2781—14th St.	Detroit, Mich.
1733	10	Anderson. S. V.	33 State St.	Ogdensburg, N. Y.
1328	11	Ames, Augustus		Algonac, Mich.
1783	11	Ames, Wm. J.		Algonac, Mich.
2047	11	Atkinson, Geo. A.		Algonac, Mich.
1689	12	Autterson, Chas. J.	4212 W. 4th St.	Duluth, Minn.
2506	12	Arnsten, Theo. A.	119 E. 3rd St.	Duluth, Minn.
1953	14	Autterson, Jos. W.	402 Trumbell Ave.	St. Clair, Mich.
2104	14	Autterson, Jno. T.	402 6th St.	St. Clair, Mich.
2179	14	Albison, Clarence		Mooretown, Ont.
2486	14	Anderson, W. M.	909 7th St.	St. Clair, Mich.

Pen. nant	Lodge	Name	Address	City
104	1	Berow, Joseph H.	R. F. D. 5, Box 37	Cullman, Ala.
319	1	Buie, Daniel	433 W. 60th St.	Chicago, Ill.
1294	1	Burns, John J.	166-16th St.	Buffalo, N. Y.
1610	1	Barclay, John	380 Hudson St.	Buffalo, N. Y.
1651	1	Brooks, Wm. H.	57 Royal Ave.	Buffalo, N. Y.
1716	1	Bennett, Chas. D.	59 Bedford Ave.	Buffalo, N. Y.
1727	1	Broderick, Benj.	Brown & Co.	Buffalo, N. Y.
1945	1	Burns, James	41 South St.	Buffalo, N. Y.
2293	1	Barry, Fred	360 Katherine St.	Buffalo, N. Y.
804	2	Brown, C. T.	1326 Euclid Ave. N. W.	Washington, D.C.
995	2	Budd, Melvin A.	P. O. Box 283	Erie, Pa.
1021	2	Bennett, Jas. S.	246 Fletcher St.	Tonawanda, N. Y.
1101	2	Burns, John	1017 8th St.	Port Huron, Mich.
1503	2	Bradshaw, John L.	1013 Lincoln Ave.	Pt. Huron, Mich.
1768	2	Brown, Chas. D.	1318 Stone St.	Pt. Huron, Mich.
2475	2	Burke, Edw. C.	2078 10th St.	Pt. Huron, Mich.
2476	2	Biddleson, Frank	421-15th St.	Port Huron, Mich.
973	3	Brion, Jas. W.	811 Perry Payne Bldg.	Cleveland, O.
1427	3	Bough, Chas.	121 W. Schuyler St.	Oswego, N. Y.
1605	3	Bright, Wm. T.	2707 N. Whipple St.	Chicago, Ill.
1910	3	Berenstein, Jacob.	1010 Robinson St.	Manistee, Mich.
2400	3	Brookhyser, Geo.	510 Arlington St.	Chicago, Ill.
2593	3	Berg, Isaac J.	10535 Ave. H.	So. Chicago, Ill.
234	4	Benham, C. E.	505 Commercial Bk. Bldg.	Cleveland, O.
698	4	Bell, Geo. A.		Vermilion, O.
982	4	Benham, Wm. P.	Rockefeller Bldg., care Hutchinson & Co.	Cleveland, O.
1068	4	Bouille, David	3304 Marvin Ave.	Cleveland, O.
1177	4	Burr, James		West Salem, O.
1236	4	Bouille, Pierce	3304 Marvin Ave.	Cleveland, O.
1384	4	Bartell, Arthur E.	1875 Burling St.	Chicago, Ill.
1423	4	Banker, Geo. H.	1557 E. 118th St.	Lakewood, Ohio.
1454	4	Bailey, F. A.	11834 Clifton Blvd.	Lakewood, Ohio.
1499	4	Benham, Geo. E.	1442 Rosewood Ave.	Lakewood, O.
1542	4	Buchanan, James.	1220 Virginia Ave.	Lakewood, Ohio.
1577	4	Burt, Geo. G.	1315 East Blvd.	Cleveland, Ohio.
1714	4	Birmingham, J.		Geneva, O.
2509	4	Bourgeois, Edw. M.	1360 W. 114th St.	Cleveland, O.
2974	4	Bostwick, M. E.	3315 W. 100th St.	Cleveland, Ohio.
1589	4	Burns, T. C.	1486 W. 116th St.	Cleveland, O.
505	6	Boyce, H. M.	631 Superior St.	Milwaukee, Wis.
1525	6	Bennett, J. G.		Bailey Harbor, Wis.

Pen. nant	Lodge	Name	Address	City
1691	6	Brownell, J. A.	935 Allis St.	Milwaukee, Wis.
2227	6	Behm, Paul	703 Ludington Ave.	Ludington, Mich.
2530	6	Bolhouse, George	515 5th Ave.	Milwaukee, Wis.
1117	7	Burke, Enos J.	415 Wabash Ave.	Detroit, Mich.
1193	7	Bertrand, Frank	1176 15th St.	Detroit, Mich.
1137	7	Balfour, C. C.	201 Blain Ave.	Detroit, Mich.
2972	4	Buckley, H. L.	418 Eddy St.	Cleveland, Ohio.
2983	4	Brown, Milton J.	9411 Detroit St.	Cleveland, Ohio.
1356	7	Baker, H. W.	884 Lathrop Ave., care Mrs. W. Schaefer	Detroit, Mich.
1397	7	Baker, Burton S.	328 VanDyke Ave.	Detroit, Mich.
1592	7	Bain, A. J.	111 Pelissier St.	Windsor, Ont.
1673	7	Brown, Claud D.	E. Main St.	Geneva, O.
1827	7	Burns, Geo. C.	298 Field Ave.	Detroit, Mich.
1830	7	Byers, Clarke J.	124 Canfield Ave., W.	Detroit, Mich.
1198	8	Brown, Hector	261 N. Main St.	Marine City, Mich.
1715	8	Booth, W. H.	1017 Pearl St.	Pt. Huron, Mich.
1903	8	Beall, A. R.	12619 Detroit Ave.	Cleveland, O.
1960	8	Baird, Jno. D.	605 Main St.	Marine City, Mich.
2078	8	Burrows, A. W.		Marine City, Mich.
2443	8	Baird, Leonard M.	330 Woodworth St.	Marine City, Mich.
2444	8	Booth, Herman	413 Jefferson St.	Marine City, Mich.
1126	9	Benson, Dan.		Prairie Depot, O.
2498	10	Bryan, Wm. T. G.	15 Mills St.	Ogdensburg, N. Y.
2034	12	Brower, Harry F.	Box 829	Two Harbors, Minn.
2335	12	Bourassa, Albert	1924 Minnesota Ave.,	Duluth, Minn.
1531	14	Brown, Nelson	R. F. D. No. 4	St. Clair, Mich.
2106	14	Burk, Joseph C.	206-4th St.	St. Clair, Mich.
2107	14	Brines, Jesse M.	553 N. Riverside Ave.	St. Clair, Mich.
2150	14	Brines, Samuel	336 W. Philadelphia St.	Detroit, Mich.
2493		Bayliss, F. C.	321 North St.	Halifax, N. S.
2450		Buchanan, Jno.	P. E. County	Waupoos, Ont., Can.
50	1	Corcoran, Joseph	221 E. 3rd St.	Erie, Pa.
116	1	Coleman, J. H.	41 Rodney Ave.	Buffalo, N. Y.
827	1	Cunningham, Jas.	59 Ardmore Place	Buffalo, N. Y.
1393	1	Clarke, John C.	387 Breckenridge St.	Buffalo, N. Y.
1508	1	Clarke, W. E.	39 Michigan Ave.	Buffalo, N. Y.
1717	1	Crawford, Geo. B.	205 Voorhees Ave.	Buffalo, N. Y.
1844	1	Clarke, Jas. M.	575 Tonawanda St.	Buffalo, N. Y.
1845	1	Chilson, W. E.	182 Ohio St.	Buffalo, N. Y.
2055	1	Coughlin, Michael	179 O'Connell Ave.	Buffalo, N. Y.
2171	1	Campbell, Chas.	91 Meriden St.	Buffalo, N. Y.

Pen. nant	Lodge	Name	Address	City
2397	1	Carr, James	219 Pennsylvania St.	Buffalo, N. Y.
861	2	Chamber, Alf. P.	829 Prospect Ave.	Pt. Huron, Mich.
1012	2	Cowles, Wm. J.		North St., Mich.
1241	2	Canartney, M.	715 Franklin Ave.	Bay City, Mich.
1495	2	Cassin, James	1334 Lepeer Ave.	Pt. Huron, Mich.
1609	2	Carlisle, Theo. J.	1018 Poplar St.	Pt. Huron, Mich.
1664	2	Crooker, David M.	2608 Gratiot Ave.	Pt. Huron, Mich.
1730	2	Crockett, Tyler J.	Federal & Commercial Bk. Bldg.	Pt. Huron, Mich.
1731	2	Comins, Alonzo B.	922 Willow St.	Pt. Huron, Mich.
2476	2	Crawford, R. M.	1809 6th St.	Pt. Huron, Mich.
2507	2	Currie, Carlos C.	420 Raspberry St.	Erie, Pa.
2508	2	Currie, Alfred L.	420 Raspberry St.	Erie, Pa.
2966	2	Cornell Hart R.		Romeo, Mich.
149	3	Carr, James	2654 Florence Ave.	Chicago, Ill.
370	3	Clow, J. M.	619 Michigan Ave.	Menominee, Mich.
642	3	Cochrane, D. M.	3530 Ellis Ave.	Chicago, Ill.
1172	3	Christopher, S.	1928 N. Richmond St.	Chicago, Ill.
1308	3	Campau, Louis A.	7515 Eggleston Ave.	Chicago, Ill.
1445	3	Cullnan, Jno.	1909 Newport Ave.	Chicago, Ill.
2388	3	Cummings, G. M.	94 Batavia St.	River Rouge, Mich.
2418	3	Cullnan, Pat. J.	1909 Newport Ave.	Chicago, Ill.
44	4	Chapman, A. C.	1482 Ridgewood Ave.	Lakewood, O.
274	4	Collier, W. A.	8010 Hough Ave.	Cleveland, O.
290	4	Call, Richard	3 Fiske St.	Ashtabula, O.
433	4	Cleveland, C. R.	3500 Denison Ave.	Cleveland, O.
738	4	Cottrell, Geo. L.	1611 Mars Ave.	Lakewood, O.
914	4	Carloss, W. S.		Ashtabula Harbor, O.
1070	4	Cody, F. B.	Care J. W. Petch	Walkerville, Ont.
1135	4	Craigie, Alex.	7405 Detroit Ave.	Cleveland, O.
1438	4	Colbert, Thomas	1440 E. 89th St.	Cleveland, O.
1523	4	Culp, Hamilton	33 Centre St.	Willoughby, O.
1563	4	Conkey, Chas. M.	8010 Luella Ave.	Chicago, Ill.
1954	4	Cowie, Andrew	1230 Bonnie View Ave.	Lakewood, O.
2064	4	Clegg, Harry J.	1224 Hall Ave.	Lakewood, O.
2159	4	Collins, Allen	1528 Northland Ave.	Lakewood, O.
2369	4	Christiansen, C.O.S.	6708 Fir Ave.	Cleveland, O.
3483	4	Carsten, Charles	5510 Franklin Ave.	Cleveland, O
2523	4	Colson, Frank O.	38 Williams St.	Ashtabula Harbor, O.
2531	4	Crerar, John	2226 E. 84th St.	Cleveland, O.
2954	4	Cooney, Edward J.	539 E. 9th St.	Erie, Pa.
2973	4	Carlisle, Colin C.	1554 Orchard Grove	Cleveland, O.

Pen. nant	Lodge	Name	Address	City
439	6	Carter, W. J.	1500 Humboldt St.	Milwaukee, Wis.
1125	6	Christiansen, A.	753 Farrell Ave.	Milwaukee, Wis.
1696	6	Clausson, G. T.	1417 Atkins St.	Erie, Pa.
1819	6	Carus, Edward	1209 Franklin St.	Manitowoc, Wis.
1861	6	Cavanaugh, J. F.	309 2nd St.	Grand Haven, Mich.
1908	6	Cartwright, Peter	560 5th Ave.	Milwaukee, Wis.
2102	6	Cook, Jacob F	654 Reed St.	Milwaukee, Wis.
1076	7	Crosby, Wm. J.	379 Cavalry Ave.	Detroit, Mich.
1085	7	Clarke, A. A.	4204 Parrish Ave.	Indiana Harbor, Ind.
1244	7	Clifford, Alex.	878 Fort St. E.	Detroit, Mich.
1355	7	Christie, Chas.	541 Clinton Ave.	Detroit, Mich.
1374	7	Callam, A. C.		Amherstburg Ont., Can.
1447	7	Craig, J. C.	134 Tyler Ave.	Highland Park, Mich.
1961	7	Cannally, Jas. T.	68 Chope Place	Detroit, Mich.
2520	7	Cain, Richard A.	3467 Fisher Ave.	Detroit, Mich.
3001	7	Cram, Edward	351 Epworth Blvd.	Detroit, Mich.
3002	7	Conlon, J. M.	999 Hudson Ave.	Detroit, Mich.
1257	8	Cottrell, J. E.	Elizabeth St.	Marine City, Mich.
1252	9	Cunningham, J. J.	1727 Ontario St.	Toledo, O.
1977	9	Cornwall, A. W.	Great Lakes Towing Co.	Toledo, O.
1890	10	Casey, Henry	118 Elizabeth St.	Ogdensburg, N. Y.
2071	11	Campbell, R.	Box 173	Algonac, Mich.
2193	11	Cole, Fred S.		Algonac, Mich.
1949	14	Conlin, Thos.	Cass & Third St.	St. Clair, Mich.
2103	14	Campbell, Robert	Caynga Ranch	Marmora, Ont.
2505	14	Cahours, H. J.	603 N. 5th St.	St. Clair, Mich.
2958	14	Cushing, Jas. C.	871 Virginia Park	Detroit, Mich.
17	1	Dunn, John	387 LeMay St.	Detroit, Mich.
317	1	Drake, A. B.	812 Prudential Bldg.	Buffalo, N. Y.
1519	1	Dunn, Thomas	594 Parkside Ave.	Buffalo, N. Y.
1670	1	Drury, John E.	256 Plymouth Ave.	Buffalo, N. Y.
1719	1	Donahue, Joseph	72 Mont Clair St.	Buffalo, N. Y.
2172	1	DeLaney, Wm. F.	775 Front Ave.	Buffalo, N. Y.
1668	2	Ditzel, Henry E.	3007 Michigan Ave.	Duluth, Minn.
2518	2	Davis, Calvin H.	703 Ontario St.	Port Huron, Mich.
105	3	Durker, Henry	4901 W. VanBuren St.	Chicago, Ill.
199	3	Disher, Wm.	4838 Fulton St.	Chicago, Ill.
983	4	Detlifs, Emil	3788 W. 33rd St.	Cleveland, O
1059	4	Driscoll, James H.	1455 Northland Ave.	Lakewood, O.
1127	4	Dyble, Edward	1669 Marlowe Ave.	Lakewood, O.
1492	4	Dixon, Alfred	4305 Brooklyn Ave.	Cleveland, O.
1803	4	Durney, John	4509 Clinton Ave.	Cleveland, O.

Pen. nant	Lodge	Name	Address	City
2002	4	Dunn, P. H.	4317 Leading Ave.	Cleveland, O.
2058	4	Dodge, Wm. J.	1583 Northland Ave.	Lakewood, O.
2141	4	Dunn, Wm. R.	3843 W. 44th St.	Cleveland, O.
2151	4	Doner, Geo. R.	11515 Hopkins Ave.	E. Cleveland, O.
2254	4	Durkee, W. W.	49 Hammersmith Ave.	Toronto, Can.
2282	4	DeLand, Waldo A.	1349 Nicholson Ave.	Lakewood, O.
2463	4	Davenport, Frank	6102 Detroit Ave.	Cleveland, O
2961	4	Duddleson, J. M.	1229 Ramona Ave.	Lakewood, O.
2978	4	Dixon, Walter J.	219 W. Natl. Blk. Bldg.	Mitchell, S. D.
2988	4	Downs, Chas. E.	1208 Bender Ave. E.	Cleveland, O.
501	6	Doake, J. A	599 Wentworth Ave.	Milwaukee, Wis.
1260	6	Dailey, Michael	252 Brady St.	Milwaukee, Wis.
1095	6	Duddleson, J. W.	110 Bingham Ave.	Soo, Mich.
1539	6	Dority, F. A.	540 Lake Drive	Milwaukee, Wis.
1566	6	Du Clas, Napoleon	935 Newhall St.	Milwaukee, Wis.
532	7	Duncanson, D. J.	320 Tuxedo Ave.	Highland Pk., Mich.
1075	7	Donaghue, E. J.	5[illegible]0 14th St	Detroit, Mich.
1683	7	Dorry, B. B.	Supt. Lighthouse	Philadelphia, Pa.
1787	7	DeNike, Lee C.	147 Highland Ave.	Highland Park, Mich.
2115	7	Davie, D. W.	Old Custom House	Detroit, Mich.
2538	7	Duncan, V. W.	188 Humboldt St.	Detroit, Mich.
1534	8	Dupiue, F. A.	335 Washington St.	Marine City, Mich.
1147	9	DeVille, D. F.	Box 348, Central Station	Toledo, O.
1467	9	Dunseith, Jno.	206 Chamber of Com.	Toledo, O.
2240	9	Dagon, Denis	354 Wabash St.	Toledo, O.
1739	10	Dunn, C. A.	1287 Warren Ave.	Detroit, Mich.
1891	10	Delaney, Geo. J.	353 E. 6th St.	Erie, Pa.
2003	10	Dessert, W. G.	16 Clark St.	Ogdensburg, N. Y.
2032	12	Doherty, John E.	122 Ellis Ave., N.	Ashland, Wis.
2251	12	Dyrness, Ole	17 Battery St.	N. Y., New York.
2334	12	Ditzel, Edward J.	827 E. 5th St.	Duluth, Minn.
2947	12	Davis, F. W.	863 W. 7th St.	Superior, Wis.
2989	12	DesJardins, F.	321 W. 7th St.	Superior, Wis.
1672	14	Doner, James	1809 N. 6th St.	Sheboygan, Wis.
1766	14	Doner, Thos. F.	184 Euclid Ave. W.	Detroit, Mich.
2007	1	Earnest, Frank H.	35 Boyd St.	Buffalo, N. Y.
2495	2	Edwards, J. A.	Box 325	Richmond, Mich.
899	3	Elliott, A. M.	2465 E. 4th St.	Long Beach, Calif.
1363	3	Elliott, Frank	care Nipigon Trans. Co.	Port Huron, Mich
1425	3	Edwards, M. L.	2758 Osgood St.	Chicago, Ill.
1536	3	Evans, Robert T.		
1975	3	Eger, W. W.	224 N. Elmwood Ave.	Oak Park, Ill.

Pen. nant	Lodge	Name	Address	City
2154	3	Emerson, S. K.	2304 N. Spaulding Ave.	Chicago, Ill.
2331	3	Emigh, Herbert W.		Lexington, Mich.
952	4	Eldredge, H. C.	3405 West Blvd.	Cleveland, O.
1219	4	England, R. W.	1520 Waterbury Road	Lakewood, O.
1483	4	Ellis, Frank S.	1348 E. 111th St.	Cleveland, O.
1885	6	Evanson, Arnold	784 Murray Ave.	Milwaukee, Wis.
1828	7	Ernest, C. W.	921 Trumbull Ave.	Detroit, Mich.
2080	7	Ellis, Claud A.		Douglas, Mich.
2501	7	Emig, Edward	681 Sheridan Ave.	Detroit, Mich.
2526	8	Emig, Arthur R.	406 West Blvd.	Marine City, Mich.
2986	8	Endleman, John G.	635 N. Main St.	Marine City, Mich.
1494	12	Ehrhardt, J. W.	2007 E. 2nd St.	Duluth, Minn.
2194	12	Ege, Gustaf	617-22nd Ave.	Duluth, Minn.
2374	12	Ege, Louis	928 43rd Ave., E.	Duluth, Minn.
2992	12	Everson, Harry	1420 Fisher Ave.	Superior, Wis.
1464	1	Finnegan, O. P.	31 Gelston St.	Buffalo, N. Y.
2940	1	Fontain, W. C.	28 Bloomfield Ave.	Buffalo, N. Y.
1629	2	Fowler, Thomas	553 12th St. W.	Detroit, Mich.
1951	2	Foster, John	323 Hubbard Ave.	Detroit, Mich.
2022	2	Frilay, H. W.	2418 Military St.	Port Huron, Mich.
1457	3	Fitch, Edward	609 S. Park Ave.	Oak Park, Ill.
1974	3	Fischer, Robert	3434 Walnut St.	Chicago, Ill.
2340	3	Ferguson, J. J.	3113 Wilson Ave.	Chicago, Ill.
2472	3	Fleming, James H.	609 E. 50th Place	Chicago, Ill.
247	4	Fick, Frank A.	1768 Noble Rd. E.	Cleveland, O.
971	4	Fleck, James A.	296 Hogarth Ave.	Detroit, Mich.
1026	4	Fox, Benson	1634 E. 86th St.	Cleveland, O.
1041	4	Ferguson, Wm.	1433 Robinwood Ave.	Lakewood, O.
1361	4	Faragher, Wm.	1366 Edward St.	Lakewood, O.
1386	4	Ferguson, John A.		Bayfield, Ont., Can.
1446	4	Fitch, Edward	1430 Springard Ave.	Lakewood, O.
1679	4	Fowlie, Andrew		Goderich Ont., Can.
2262	4	Francis, L. J.	1655 Clarence Ave.	Lakewood, O.
2503	4	Frankforther, R. O.	R. F. D. No. 7	Defiance, O.
2975	4	Fick, John E.	1754 E. 27th St.	Cleveland, O.
1970	6	Franklin, W. E.	1005 State St.	Traverse City, Mich.
2235	6	Fowler, C. C.		Montague, Mich.
612	7	Fox, A. J.	Foot of First St.	Detroit, Mich.
629	7	Ferguson, R. E.	22 Elm Ave.	Windsor, Ont., Can.
1417	7	Forbes, Alex.	71 Hazelwood Ave.	Detroit, Mich.
1465	7	Flaherty, Jas.	Detroit River Station	Detroit, Mich.
1815	7	Fox, Chas.	Str. Marquette	Detroit, Mich.

Pen. nant	Lodge	Name	Address	City
2030	12	Fox, Henry	General Delivery	Two Harbors, Minn.
2266		Ferguson, W. J.	209 S. Marks St.	Ft. William, Ont.
2069	12	Finnegan, Herbert	105 N. 5th St.	St. Clair, Mich.
120	1	Graser, George	Nueva Gerona	Isle of Pines, Cuba
1016	1	Green, John D.	955 West Ave.	Buffalo, N. Y.
1060	1	Gibson, Jas. R.	692 Prospect Ave.	Buffalo, N. Y.
1314	1	Grant, C. J.	1239 Lakeland Ave.	Lakewood, O.
1633	1	Gebbard, Frank R.	1308 Michigan St.	Buffalo, N. Y.
1723	1	Gibson, James	394 Jersey Ave.	Buffalo, N. Y.
2049	1	Green, Joseph M.	529 Woodlawn Ave.	Buffalo, N. Y.
1684	2	Geel, Guy G.	Commercial Bank	Port Huron, Mich.
986	3	Gallino, A. P.	404 Jay St.	St. Clair, Mich.
1568	3	Green, Arnold	3231 Potomac Ave.	Chicago, Ill.
2532	3	Gustafson, C. A.	1519 E. 76th Place	Chicago, Ill.
2964	3	Gentz, Otto A.	7518 Clyde Ave.	Chicago, Ill.
1403	4	Goodwin, Jas. F.	1302 W. 103rd St.	Cleveland, O.
1493	4	Gould, Frank E.	15212 Lake Shore Blvd.	Cleveland, O.
1588	4	Grashaw, Walter	11317 Quincy Ave.	Cleveland, O.
1595	4	Girardin, W. L.	1211 Bonnie View Ave.	Lakewood, O.
1596	4	Gustafson, Peter	2237 Carnegie Ave.	Cleveland, O.
2117	4	Glen, Alex	2284 E. 100th St.	Cleveland, O.
2371	4	Gardner, Chas. B.	609 Shelby St.	Sandusky, O.
2524	4	Goff, Edward	3818 Lorain Ave.	Cleveland, O.
1552	6	Garrity, Thos.	935 Newhall St.	Milwaukee, Wis.
2122	6	Grimm, Otto C.	555 7th Ave.	Milwaukee, Wis.
2977	6	Garland, Guy N.	1318 First St.	Milwaukee, Wis.
3000	6	Griffith, T. R.	488 Greenbush St.	Milwaukee, Wis.
1054	7	Goodrow, Frank	475 Cadillac Ave.	Detroit, Mich.
1526	7	Gordon, D. G.	504 Chamber of Commerce	Detroit, Mich.
1585	7	Gatfield, E. D.		Grose Isle, Mich.
1920	7	Gleason, J. F.	843 Lathrop Ave.	Detroit, Mich.
2949	7	Grose, Otto M.	492 Piper Blvd.	Detroit, Mich
2950	7	Grose, Edward W.	399½ Piper Blvd.	Detroit, Mich.
1911	10	Gamashe, Fred	36 Patterson St.	Ogdensburg, N. Y.
2399	10	Gooden, Frank	112 King St.	Ogdensburg, N. Y.
1771	11	Galton, F. D.		Algonac, Mich.
1779	11	Grant, Theodore	Box 78	Algonac, Mich.
2025	12	Glockle, M. B.	5915 Hough Ave.	Cleveland, O.
2037	12	Glenn, Martin E.	5713 Olney St.	Duluth, Minn.
2042	12	Green, Chas. H.	1515 E. 4th St.	Duluth, Minn.
2221	12	Gunderson, G.	1829 London Road	Soo, Mich.
1150	14	Greening, Wm.	1139 Pringree St.	Detroit, Mich.

Pen. nant	Lodge	Name	Address	City
2515		Guy, John	36 S. Clifton St.	Halifax, N. S.
22	1	Hogg, G. L.	7710 Emerald Ave.	Chicago, Ill.
1029	1	Herbert, Fred	Care Light House Inspector	Buffalo, N. Y.
1091	1	Howe, Alfred B.	753 So. Main St.	Dayton, O.
1140	1	Hansen, A. C.	2528 Main St.	Buffalo, N. Y.
1187	1	Hartman, John L.	41 Lafayette Ave.	Buffalo, N. Y.
1497	1	Herbert, Jas. G.	Erie Co., R. F. D. No. 1	Hamburg, N. Y.
1728	1	Heffernan, Jas.	68 Seymour St.	Tonawanda, N. Y.
1754	1	Hanley, C. C.	371 Falconer St.	No. Tonawanda, N. Y.
1756	1	Holmberg, Henry	229 Lafayette Ave.	Buffalo, N. Y.
1759	1	Hayes, W. J.	243 Broad St.	Tonawanda, N. Y.
1760	1	Heffernan, Thos.	39 Grove St.	Tonawanda, N. Y.
2082	1	Hutchins, H. J.	93 Elk St.	Buffalo, N. Y.
2242	1	Healy, James J.	47 Roanoke Pkwy.	Buffalo, N. Y.
2971	1	Healy, George	142 Echra Place	Buffalo, N. Y.
388	2	Harrow, W. B.	301 Putnam Ave.	Detroit, Mich.
641	2	Harper, George	1509 Marquette Ave.	W. Bay City, Mich.
1555	2	Hughes, Henry S.	10 Mohawk St.	Albany, N. Y.
2404	2	Hayes, Jno. E.	202 Glenwood Ave.	Port Huron, Mich
1359	3	Higgie, John F.	136 S. Waller Ave.	Chicago, Ill.
1699	3	Hansen, Andrew	4245 Lemoyne St.	Chicago, Ill.
2004	3	Hansen, Hans.	2526 No. Avers Ave.	Chicago, Ill.
362	3	Higgins, Thos. J.	302 N. Lockwood Ave.	Chicago, Ill.
2381	3	Hillstrand, H.	1653 N. Tripp Ave.	Chicago, Ill.
2470	3	Hougneland, L.	2726 Channay St.	Chicago, Ill.
2537	3	Horton, Chas. E.	2648 No. Halsted St.	Chicago, Ill.
2539	3	Hansen, Hans A.	3939 N. Troy Ave.	Chicago, Ill.
160	4	Hoover, N. E.	9715 Madison Ave., N. W.	Cleveland, O.
2105	4	Hartman, A.	921 E. 105th St.	Cleveland, Ohio.
391	4	Hinslea, Chas. H.	2836 Franklin Ave.	Cleveland, O.
269	4	Holmes, J. A.	2929 Edghill Ave.	Cleveland, O.
506	4	Hawgood, A. H.	1862 E. 97th St.	Cleveland, O.
1004	4	Hoag, Wm. S.	7505 Franklin Ave.	Cleveland, O.
1017	4	Hunt, Wm. J.	1528 Lauderdale Ave.	Lakewood, O.
1106	4	Heaton, Chas. H.	1337 W. 112th St.	Cleveland, O.
1136	4	Hengenrother, J.	3266 W. 82nd St.	Cleveland, O.
1184	4	Hinslea, Henry	2836 Franklin Ave.	Cleveland, O.
1197	4	Hand, A. S.	533 Harbor St.	Conneaut, O.
1204	4	Hahn, Chas. P.		Vermilion, O.
1553	4	Holdridge, Geo.	R. F. D. No. 3, Box 17	Geneva, O.
2116	4	Hughes, Jos. H.	13508 Woodworth Rd.	Cleveland, O.

Pen. nant	Lodge	Name	Address	City
2447	4	Hibbard, Grant C.	13611 Milan Ave.	E. Cleveland, O.
2969	4	Hinslea, Lee C.	1743 Bryn Mawr Rd.	Cleveland, O.
572	6	Hubbard, Chas. H.	care Sup't Lighthouses	Milwaukee, Wis.
1527	6	Hendricksen, Otto.	Milwaukee Tug Boat Line	Milwaukee, Wis.
1878	6	Hoxie, A. L.	511 N. Charles St.	Ludington, Mich.
1884	6	Hays, Jno. C.	149 W. 26th St.	Erie, Pa.
2999	6	Hoglund, R. C.	320 Mont Clair Ave.	Detroit, Mich.
528	7	Hutton, Jno. T.	69 McLean Ave.	Detroit, Mich.
666	7	Holbrook, F. H.	Box 153	Trenton, Mich.
987	7	Hutchins, F. G.		South Rockwood, Mich.
1547	7	Hosner, V. L.	755 Canton Ave.	Detroit, Mich.
1612	7	Hansen, J. T.	850 Stanley Ave.	Detroit, Mich.
1707	7	Hormig, W. F.	53 Seeboldt Ave.	Detroit, Mich.
1786	7	Hackett, Thos. H.	425 4th Ave.	Detroit, Mich.
1832	7	Honner, G. W.	471 Delaware Ave.	Detroit, Mich.
1834	7	Hayward, Geo.	53 Whiting Ave.	Detroit, Mich.
1851	7	Huntoon, Fred A.	255 Forrest Ave.	W. Detroit, Mich.
1881	7	Hoffman, Frank	416 Ferry Park Ave.	Detroit, Mich.
2517	7	Hyatt, Jno. H.	908 Warren Ave.	W. Detroit, Mich.
786	8	Hogan, William	336 Union St.	Marine City, Mich.
1421	8	Hill, Fred C.		Marine City, Mich.
553	9	Harlow, Wm. J.	1430 Broadway	Toledo, O.
826	9	Herrick, Thos. C.	3368 Cherry St.	Toledo, O.
1304	9	Harlow, Frank T.	1577 W. 29th St.	Cleveland, O.
1946	9	Holman, Henry	2112 Chase St.	Toledo, O.
2430	11	Haydit, Wm. F.	Box 353	Algonac, Mich.
2041	12	Hoy, W. E.	5001 E. Superior St.	Duluth, Minn.
2085	12	Hansen, Hans. C.	3819 W. 4th St.	Duluth, Minn.
2252	12	Hector, Fred.	4301 Cook St.	Duluth, Minn.
2461	12	Hansen, L. P.	care V. Salling, Bx. 113	Grayling, Mich.
1820	14	Hollingshead, Jno.	892 32nd St.	Oakland, Calif.
1924	14	Hayward, Eugene.	R. F. D. No. 2	St. Clair, Mich.
2105	14	Hartman, A.	921 E. 105th St.	Cleveland, O.
2413		Housberger, Wm.	Box 564	Thorold, Ont., Can.
1035	4	Ingraham, F. E.	221 S. 5th St.	Alhambra, Calif.
15	7	Ivers, J. H.	705 Cadillac Ave.	Detroit, Mich.
1443	7	Iler, W. C.	487 Lakewood Blvd.	Detroit, Mich.
394	1	Johnson, John	38 Baynes St.	Buffalo, N. Y.
1976	1	Johnson, Alfred	205 Lafayette Ave.	Buffalo, N. Y.
2014	1	Jansen, Jacob C.	25 Mesmer Ave.	Buffalo, N. Y.
1014	2	Johnston, Edw.		Aylmer, Ont., Can.

Pennant	Lodge	Name	Address	City
1767	2	Johnston, Martin	2120 8th St.	Port Huron, Mich.
2241	2	Jamieson, A. W.	1115 Elmwood St.	Port Huron, Mich.
1603	3	Johnson, Carl	2600 N. Sawyer Ave.	Chicago, Ill.
1909	3	Jaenke, H. M.	10420 Ave. N.	South Chicago, Ill.
2061	3	Johnson, Geo. E.	512 5th Ave.	Traverse City, Mich.
1115	4	Jones, John F.	5806 Clinton Ave.	Cleveland, O.
1394	4	Johnson, Martin	10122 Olivet Ave., N. E.	Cleveland, O.
2291	4	Johnson, R. E.	9916 St. Clair Ave.	Cleveland, O.
2456	4	Jensen, Jen. P.	244 Rug Ave.	Conneaut, O.
2976	4	Jones, Ralph E.	56-102nd St.	Cleveland, O.
1532	6	Jones, Warren	Milwaukee Tug Boat Line	Milwaukee, Wis.
2212	6	Johnson, Oscar A.		Courtwright, Ont., Can.
2946	6	Jackson, E. G.	635 26th Ave.	Milwaukee, Wis.
1081	7	Johnston, Alex.	1009 9th St.	Bay City, Mich.
1852	7	Jagenow, Wm.	922 Mt. Elliott Ave.	Detroit, Mich.
1797	7	Judson, H. W.	239 Rosedale Court	Detroit, Mich.
1131	9	Jex, H. N.	1749 Summit St.	Toledo, O.
1479	11	Jackson, Richard	Box 135	Algonac, Mich.
1208	12	Jacobsen, J. E.	1007 N. Lorel Ave.	Chicago, Ill.
2024	12	Jones, Albert M.	1625 Broadway	Superior, Wis.
2044	12	Johnson, Henry	820 W. Hayward Ave.	Baltimore, Md.
2287	12	Johns, John F.	1232 W. 3rd St.	Duluth, Minn.
2149	14	Jerome, W. R.	214 Thornapple St.	St. Clair, Mich.
1388	1	Klock, Everett	Three Mile Bay	New York, N. Y.
1578	1	Kelly, Andrew	341 Bayner St.	Buffalo, N. Y.
1687	1	Koch, Robert	451 Dodge St.	Buffalo, N. Y.
2955	8	Ingles, Robert	52 Water St.	Marine City, Mich.
2395	1	Kennedy, John	44 Alsace Ave.	Buffalo, N. Y.
2968	1	Keeley, Jno. W.	care Str. Maitland No. 1	Ashtabula H., O.
89	2	Kendall, H. J.	Box 32	Marysville, Mich.
1240	2	Kelly, James W.	2021 7th St.	Port Huron, Mich.
1661	2	Knapp, R. H.		Stuart, Florida.
1998	2	Krenkel, Chas. F.	2035 8th St.	Port Huron, Mich.
1437	3	Kohnert, J. E.	6443 Kenwood Ave.	Chicago, Ill.
1442	4	Keller, Alva B.	15333 Euclid Ave.	Cleveland, O.
1237	4	Kelley, Henry T.	1068 E. 99th St.	Cleveland, O.
2534	4	Kiefe, Daniel J.	2155 W. 62nd St.	Cleveland, O.
1690	6	Kearns, Chas. J.	482 35th St.	Milwaukee, Wis.
2226	6	Kruwell, W. E. H.	R. R. 1, Box No. 5	Chief, Mich.
1122	7	Kearns, Joseph	139 Oak St.	Wyandotte, Mich.
1785	7	Klingler, Geo. M.	374 Van Dyke Ave.	Detroit, Mich.

Pen. mant	Lodge	Name	Address	City
2527	7	Kaminsky, G. W...	425 LaSalle Ave.....	Detroit, Mich.
1243	8	Kuhn, Jno.	136 N. Main St.....	Marine City, Mich.
1915	8	Kenyon, S. D.	128 Bridge St.	Marine City, Mich.
2944	8	Kiddle, A. A.	347 N. Williams St...	Marine City, Mich.
1266	9	Kirker, Fred	9424 S. Budlong Ave..	Los Angeles, Calif.
1746	10	Kinch, Geo. H. ...	85 New York Ave.....	Ogdensburg, N. Y.
1772	11	Kendall, Douglas.....		Algonac, Mich.
1776	11	Kenworthy, Saml...	Box 212	Algonac, Mich.
1229	14	Kenyon, W. S.	R. F. D. No. 4.....	St. Clair, Mich.
1809	1	Lucas, Wm. J.	50 Greenwood Place.....	Buffalo, N. Y.
2111	1	Larsen, Jno. A. ...	83 E. Seneca St.	Buffalo, N. Y.
557	2	Laframboise, J. ...	Box 307	Amherstburg, Ont., Can.
1381	3	Lamoreaux, Jos. ..	6724 Champlain Ave.....	Chicago, Ill.
1617	3	Lang, Julius	2229 Eastwood Ave.....	Chicago, Ill.
1996	3	Leith, Wm. R.	10604 Ave. L.	S. Chicago, Ill.
2005	3	Lindale, T. T.	3708 McLean Ave.	Chicago, Ill.
164	4	Lowe, James B. ...	1635 Ellar Ave.	Lakewood, O.
182	4	Lowe, John	1426 Mars Ave.	Lakewood, O.
197	4	Lyons, R. J.	1111 W. Erie St.	Lorain, O.
810	4	Lalonde, Anthony..	1766 Fulton Road	Cleveland, O.
960	4	Lampoh, Joseph		Avon Lake, O.
1010	4	LaFramboise, J....	2048 Chenngo Ave. ..	Los Angeles, Calif.
1295	4	Landfair, B. M. ...	1619 Cohasset Ave.	Lakewood, O.
1352	4	Leckie, Frederick..	1020 Rockefeller Bldg.....	Cleveland, O.
1789	4	Logan, John A. ...	4008 Archwood Ave.....	Cleveland, O.
2300	4	Levis, Geo.	1329 W. 87th St.....	Cleveland, O.
2464	4	LeRoy, David M...	3101 Clinton Ave.....	Cleveland, O.
500	6	Leisk, Henry	16 Kenwood Ave.....	Wauwatosa, Wis.
498	6	Leisk, John	729 Wilson St.	Milwaukee, Wis.
1678	6	Lee, I. M.	1047 W. 8th St. W. ..	Los Angeles, Calif.
1765	6	Larson, N. L.	518 Bingham St.	Soo, Mich.
2211	6	Larsen, J. L.	801 Main St.	Green Bay, Wis.
2260	6	Leisk, Henry A. ..	720 Maryland Ave.....	Milwaukee, Wis.
750	7	Livingston, W., Jr..	2217 Dime Sav. Bk. Bldg..	Detroit, Mich.
1688	7	Leonard, R. M.		New Baltimore, Mich.
1901	7	Lightbody, J.	164 Holbrook Ave.....	Detroit, Mich.
2146	7	Loughlin, Geo. F...	690 Hamilton Ave.	Detroit, Mich.
2195	7	Littlejohn, Wm. ..	269 W. 8th St.	Erie, Pa.
2982	7	Lane, Wm. J.	864 Hudson Ave.	Detroit, Mich.
1559	8	Lohr, Jno. M.		Marine City, Mich.
1967	8	Lovely, L. J.	569 Main St.	Marine City, Mich.
2000	8	Langell, L. P.	338 Pearl St.....	Marine City, Mich.

Pen. nant	Lodge	Name	Address	City
2213	8	Langell, Thomas	R. F. D. No. 1	Marine City, Mich.
2336	8	Lockhart, Asa	Woodworth Ave	Marine City, Mich.
1079	9	Lockhart, D. O.	236 W. Grand Blvd.	Detroit, Mich.
1487	9	Lyons, J. B.	1334 6th St.	Lorain. O.
1734	10	Leonard, M. A.	416 Ford St	Ogdensburg, N. Y.
1800	10	Loveless, Fred.	38 Pickering St	Ogdensburg, N. Y.
2352	10	Lago, Thomas	155 Green St	Ogdensburg, N. Y.
1490	11	Lyons, S. A.		
1774	11	Little, Nelson T.		Algonac, Mich.
2173	12	Lyons, Geo. A.	1631 W. 1st St.	Duluth, Minn
2181	12	Lewis, Frank		Dundee, Mich.
2516	12	Larson, James	722 Hammond Ave	Superior, Wis.
2990	12	Lenaghen, Geo. H.	1726 Ogden Ave.	Superior, Wis.
3006	12	Larson, James	R. F. D. No. 1	Zimmerman, Minn.
1835	14	Lowes, J. H.	210 Adams St.	St. Clair, Mich.
2299	14	Lawrence, Earl		St. Clair, Mich.
108	1	Murphy, Henry	34 Greenwood Ave	Buffalo, N. Y.
129	1	Murphy, S. M.	R. F. D. No. 2	Deckerville, Mich.
891	1	Madigan, Jas. A.	296 W. Delaware St.	Buffalo, N. Y.
1047	1	Martin, Edward	308 Purdy St.	Buffalo, N. Y.
1155	1	Montgomery, J. M.	79 Greenfield St.	Buffalo, N. Y.
1562	1	Milne, John		Thornburg, Ont.
1817	1	Montgomery, J. A.	417-4th St.	St. Petersburg, Fla.
1926	1	Mallory, R. A.	1217 Chamber of Com.	Buffalo, N. Y.
1995	1	Morin, Thomas F.	314 Fargo Ave.	Buffalo, N. Y.
1962	1	Myers, R. D.	915 N Lombard Ave.	Oak Park, Ill.
576	2	Maitland, Henry	1026 Wall St	Port Huron, Mich.
994	2	Manuel, Fred W.	3311 Military St	Port Huron, Mich.
1656	2	Montgomery, W. L.	750 Water St	Port Huron, Mich.
1836	2	Millard, Wm. L.	502 16th St.	Port Huron, Mich.
2168	2	Montgomery, G. A.	1201 Howard St	Port Huron, Mich.
2284	2	Myers, G. F.	343 Robinson St	N. Tonawanda, N. Y.
2492	2	May, E. W.	1912 7th St.	Port Huron, Mich.
254	3	Moore, H. R.	6919 Wayne Ave.	Chicago, Ill.
412	3	Moore, Chas. K.	1927 Hughitt Ave., care John Mussey	Superior, Wis.
450	3	Minsky, J. P.	2432 Geneva Terrace	Chicago, Ill.
1170	3	Minter, Thos. B.	1235 Otis St.	Chicago, Ill.
1695	3	Miller, Chas. F.	Dunham Towing Co.	South Chicago, Ill.
1698	3	Meyer, Gust	3826 N. Whipple St	Chicago, Ill.
1724	3	Morgan, M. F.	2115 Summerdale Ave	Chicago, Ill.
2010	3	Morrison, Dougal.	742 S. Kedzie Ave.	Chicago, Ill.

Pen. nant	Lodge	Name	Address	City
2099	3	Matson, S. W.	2506 Sayre Ave.	Chicago, Ill.
2167	3	Madden, Jno. H.	908 Rockefeller Bldg.	Cleveland, O.
2967	3	Madden, Thos. M.	116 W. Erie St.	Chicago, Ill.
176	4	Malory, G. B.	Care Pickands, Mather Co.	Cleveland, O.
302	4	Mallory, D. H.	National Bank of Elyria	Elyria, O.
339	4	Mulholland, M.		New Plymouth, Id.
695	4	Miller, Chas. D.	213 Lincoln Ave.	N. Tonawanda, N. Y.
959	4	Moody, W. H.		Vermilion, O.
988	4	Megervey, Wm.		Warren, O.
1238	4	Murdock, John A.		Saxon, Wis.
1572	4	Moore, Frank	2081 W. 98th St.	Cleveland, O.
1587	4	Millikin, Wm.	14503 Orinoco Ave.	Cleveland, O.
1580	4	Meeker, S. E.	1454 Orchard Grove Ave.	Lakewood, O.
1675	4	Mooney, Wm. F.		West Park, O.
1702	4	Moore, Wm. E.	1884 W. 54th St.	Cleveland, O.
1704	4	Mason. Chas. D.	1100 Rockefeller Bldg.	Cleveland, O.
1713	4	Morton, Edw. R.	12323 Saynell Ave.	Cleveland, O.
1821	4	Moore, Geo. W.	1386 W. 91st St.	Cleveland, O.
1973	4	Mallott, J. W.	Box 25	Ruthven, Ont., Can.
2199	4	Morrison, Wm. F.	1641 Waterbury Rd.	Lakewood, O.
2391	4	Martin, Peter J.	5704 Longfellow Ave.	Cleveland, O.
2466	4	Mohr, Chas. H.	1510 Contaut St.	Lakewood, O.
2942	4	Munroe, A. J.	1884 W. 71st St.	Cleveland, O.
2979	4	Moran, Jos. S.	2088 W. 89th St.	Cleveland, O.
2996	4	Morton, A. C.	11507 Fairport Ave.	Cleveland, O.
3007	4	Meyers, Chas. F.	6 Walnut St.	Ashtabula, O.
477	6	Maxon, F. C.	83 31st St.	Milwaukee, Wis.
1032	6	Moody, Chas. E.	92 33rd St.	Milwaukee, Wis.
1763	6	Mackey, Melvin	402 Edgewood Ave.	Milwaukee, Wis.
2124	6	Mellan, Gurenuis	care Str. L. R. Davidson.	Manitowoc, Wis.
2417	6	Maynard, H. W.	care Supt. Lighthouse Insp.	Milwaukee
732	7	Mara, James	465 Military St	Detroit, Mich.
1073	7	Mahon, A. J.	1243 Euclid Ave.	Detroit, Mich.
1082	7	Mallette, P. A.	1035 Hurlburt Ave.	Detroit, Mich.
1175	7	Millen, P. L.		Romeo, Mich.
1194	7	Maddock, J. B.	3719 Hoiles Ave.	Toledo, O.
1203	7	Maddock, J. C.	3719 Hoiles Ave.	Toledo, O.
1582	7	Merckel, C. G.	122 Stanton Ave.	Detroit, Mich.
1694	7	Morrison, J. N.	32 Calvert Ave.	Detroit, Mich.
2144	7	Morrison, Alvin A.	2816 Logan Blvd.	Chicago, Ill.
1276	8	Maxwell, Wm.	214 N. Elizabeth St.	Marine City, Mich.
1402	8	Markle, S. J.	54 Euclid Ave.	Detroit, Mich.

Pen. nant	Lodge	Name	Address	City
1904	8	Mitchell, D. R.	225 N. Market St.	Marine City, Mich.
613	9	Meikleham, Thos.	641 Fernwood Ave.	Toledo, O.
1736	10	Murphy, H. A.	119 Caroline St.	Ogdensburg, N. Y.
1778	11	Moore, S. D.		Algonac, Mich.
1781	11	Mitchell, Alvin B.		Algonac, Mich.
2218	11	Morrison, E. R.	368 Fargo Ave.	Buffalo, N. Y.
1790	12	Massey, Chester	1927 Hughitt Ave.	Superior, Wis.
2376	12	Miller, Thos. R.	1621 Grand Ave.	Milwaukee, Wis.
2455	12	Massey, J. Floyd	1927 Hughitt Ave.	Superior, Wis.
1964	14	Morse, A. R.	107 S. 9th St.	St. Clair, Mich.
2164	14	Mussman, A.	901 S. 7th St.	St. Clair, Mich.
2359		Marcellias, W. C.	118 Peter St.	Port Arthur, Ont.
2454		Miller, R. McLean	502 Lundsen Bldg.	Toronto, Can.
315	1	McEachren, A.	553 W. Ave.	Buffalo, N. Y.
1652	1	McDonald, John A.	202 Main St.	Buffalo, N. Y.
1757	1	McLaren, B. C.	50 Greenwood Place	Buffalo, N. Y.
1810	1	McClinton, Wm. D.	381 W. 6th St.	Superior, Wis.
1814	1	McLeod, Dugald	53 Ardmore Place	Buffalo, N. Y.
2016	1	McFadden, W. L.	306 Purdy St.	Buffalo, N. Y.
2970	1	McPherson, A. J.	Hampcher St.	Buffalo, N. Y.
2129	1	McCorkell, W. H.	16 N. Bailey Ave.	Buffalo, N. Y.
2382	1	McKenzie, Alex.	969 Niagara St.	Buffalo, N. Y.
1504	2	McLean, J. C.	1109 St. Clair St.	Port Huron, Mich.
1999	2	McDonald, J. E.	1929 Stone St.	Port Huron, Mich.
2259	2	McMartin, Frank	459 Blain Ave.	Detroit, Mich.
300	3	McCambridge, T.	306 2nd St.	Grand Haven, Mich.
542	3	McDonald, Geo.	4411 N. Winchester Ave.	Chicago, Ill.
543	3	MacLean, Donald	R. F. D. No. 1	Michigan City, Ind.
941	3	McIntyre, A. A.	care Capt. Morgan	Chicago, Ill.
1619	3	McQueen, W. S.	144 Lindwood Ave.	Detroit, Mich.
1857	3	McKenzie, K.	Box 79	Tiverton, Ont., Can.
2121	3	McClintock, John	7724 Loomis St.	Chicago, Ill.
2244	3	McGarrity, Dan. J.	7734 Constance Ave.	Chicago, Ill.
1069	4	McGarry, John	1657 Waterbury Rd.	Lakewood, O.
1224	4	McAlpine, Hugh	1794 W. 47th St.	Cleveland, O.
1415	4	MacLachlan, A. H.	1861 W. 47th St.	Cleveland, O.
1462	4	McDonald, W.	1589 Lincoln Ave.	Lakewood, O.
1557	4	McGarry, Geo.	1658 Elbut Ave.	Lakewood, O.
2096	4	McLachlan, W. H.	1461 Marlowe Ave.	Lakewood, O.
2142	4	McNaughton, Roy	First National Bank	Soo, Mich.
2161	4	McDonald, J. J.	1321 W. 108th St.	Cleveland, O.
2372	4	McCarthy, Patrick	1575 Northland Ave.	Lakewood, O.

Pen. nant	Lodge	Name	Address	City
507	6	McSweeny, John	459 Magnolia Ave.	Milwaukee, Wis.
515	6	McGregor, W. F.		Porcupine, Ont., Can.
1561	6	McShane, D. W.		New Auburn, Wis.
1682	6	McCauly, C.	431 Junean Place	Milwaukee, Wis
1833	6	McCauley, Chas.	408 S. Morris St.	Escanaba, Mich.
2283	6	McCauley, John P.	1959 W. 52nd St.	Cleveland, O.
755	7	McLarty, James	163 Colburne Place	Detroit, Mich.
767	7	McIntosh, M. G.	05 Burlingame Ave.	Detroit, Mich.
875	7	McCallam, H. C.	2503 Military St.	Port Huron, Mich.
910	7	McLean, Wm.	1225 St. Charles St.	Lakewood, O.
972	7	McAlpine, John	263 LaMothe Ave.	Detroit, Mich.
1028	7	McLachlan, A.	56 11th St.	Detroit, Mich.
1052	7	McGuire, Norman	810 Ferry Park Ave.	Detroit, Mich.
1065	7	McIntosh, J. L.	312 Hancock Ave. W.	Detroit, Mich.
1112	7	McCarthy, D.	354 Arborway	Jamaica Plains, Mass.
1433	7	MacLean, W. J.	621 Wabash Ave.	Detroit, Mich.
1631	7	McCarthy, John	Box 11	Sandwich, Ont., Can.
1854	7	MacKay, Daniel	City of Cleveland	Detroit, Mich.
1899	7	MacAuley, Geo.	113 Byron Ave.	Detroit, Mich.
1937	7	McGowen, Hugh	care Dr. Moss	Pontiac, Mich.
2145	7	McDougall, W. L.	259 Meadowbrook Ave.	Detroit, Mich.
	7	MacDonald, Alex	259 Meadowbrook Ave.	Detroit, Mich.
2197	7	McDonald, Fred	292 4th Ave.	Detroit, Mich.
2479	7	McCormick, J. C.	394 Phillips Ave.	Detroit, Mich.
1199	8	McCann, S. B.	221 S. Elizabeth St.	Marine City, Mich.
1616	8	McDonald, G. W.	234 N. Williams St.	Marine City, Mich.
1990	8	McNeill, W. H.	330 S. Williams St.	Marine City, Mich.
856	9	McKinley, Jas.	1717 Ontario St.	Toledo, O.
1799	10	McDonald, John	96 Green St.	Ogdensburg, N. Y.
1315	12	McGregor, Wilson	Box 536	Bowling Green, Ken.
2046	12	McDougall, T. A.	876 W. 7th St.	Superior, Wis.
2174	12	MacLeod, A. R.	737 E. 21st St.	Erie, Pa.
2278		McLeod, N. J.	93 Ontario St.	Port Arthur, Ont., Can.
2941	1	Nims, R. J.	938 Norwood Ave.	Toledo, Ohio.
1109	2	Neal James S.	102 Park Ave.	Mt. Clemens, Mich.
1207	2	Nea William D.	Box 21	Courtwright, Ont., Can.
2478	2	Nelson, H. J.	403 15th St.	Port Huron, Mich.
2420	3	Napier, H. N.	693 Irving St.	Portland, Oregon
2525	3	Nelson, Robert	2108 Central Park Ave.	Chicago, Ill.
1395	4	Nordahl, Arnold	2908 Carroll Ave.	Cleveland, O.
1804	4	Nelson, Olaf.	3722 W. 36th St	Cleveland, O.
1865	4	Noble, John	1418 Northland Ave.	Cleveland, O.

Pen. nant	Lodge	Name	Address	City
2092	4	Nelson, S.	1291 Donald Ave.	Cleveland, O.
2134	4	Neville, R. J.	1331 W. 102nd St.	Cleveland, O.
3008	4	Nunn, Arthur E.	1344 Irene St.	Lakewood, Ohio.
2343	6	Nortenan, L. W.	717-49th St.	Milwaukee, Wis.
464	7	Nicholson, D.	Foot of Woodward St	Detroit, Mich.
1623	7	Norwell, Walker	527 Clements St.	Detroit, Mich.
1829	7	Nesbitt, Wm. K.	3297 Euclid Blvd.	Cleveland, O.
2452	7	Nielsen, John	455 Oliver St.	N. Tonawanda, N. Y.
2987	7	Needham, H. J.	328 Hecla Ave.	Detroit, Mich.
1737	10	Neslon, C. O.	R. F. D. No. 2, Box 19	Ogdensburg, N. Y.
1740	10	Neslon, A. C.	R. F. D. No. 2, Box 19	Ogdensburg, N. Y.
2491	10	Noble, Edmund O.	7 Grove St	Adams, N. Y.
2351	12	Ness, Martin O.	3819 W. 4th St.	Duluth, Minn.
2271		Nuttall, Robert E.	212 St. James St.	Port Arthur, Ont.
1169	1	O'Day, Simon	729 Prospect Ave.	Buffalo, N. Y.
1179	1	O'Neill, Patrick J.	632 Plymouth Ave.	Buffalo, N. Y.
1726	1	O'Hagan, John	144 Grove St.	Tonawanda, N. Y.
1753	1	O'Hagan, Hugh	220 Grove St.	Tonawanda, N. Y.
2350	1	Oliver, Percy	255 Lexington St.	Buffalo, N. Y.
1444	3	Olsen, Jn. K.	424 Federal Bldg.	Milwaukee, Wis.
2473	3	Ohlka, Chas. H.	2108 W. 70th St.	Chicago, Ill.
1720	4	Olsen, Chas.	117 Walnut St.	Ashtabula, O.
358	4	Olsen, Olaf.	10828 Superior St. N. E.	Cleveland, O.
2499	4	Ott, Frank H.	7101 Franklin Ave.	Cleveland, O.
1148	6	Olson, Sam.	469 25th Ave.	Milwaukee, Wis.
1818	6	Oakley, Jas.	6551 Cottage Grove Ave.	Chicago, Ill.
1860	6	Olson, Sam	1214 New York Ave.	Manitowoc, Wis.
1888	7	Ogden, Ben. F.	1110 Virginia Park	Detroit, Mich.
2256	7	Oman, Chas. H.	271 Young St.	Tonawanda, N. Y.
2480	12	O'Meara, John H.		Two Harbors, Minn.
350	14	O'Connor, R.	525 N. 2nd St.	St. Clair, Mich.
1392	1	Peterson, M. S.	21 Butler Ave.	Buffalo, N. Y.
2188	1	Phillips, Jas. J.	16 Elmwood Ave.	Tonawanda, N. Y.
2471	1	Page, Geo. H.	2472 E. 74th St.	Chicago, Ill.
140	2	Powie, P. F.	1131 Howard St.	Port Huron, Mich.
1269	3	Patterson, Wm.	6308 Eberhardt Ave.	Chicago, Ill.
1858	3	Post, S. G.	Lake St. Bridge	Chicago, Ill.
2216	3	Peterson, Martin	1462 Lauderdale Ave.	Lakewood, O.
694	4	Peterson, C. A.	624 Reece St.	Sandusky, O.
1039	4	Post, J. W.		Sandusky, O.
1329	4	Peterson, P. A.	10614 Garfield Ave.	Cleveland, O.
1482	4	Packer, W. H.	443 W. 1st Ave.	Columbus, O.

Pennant	Lodge	Name	Address	City
1528	4	Pringle, R. C.	1577 Wagar Ave.	Lakewood, O.
1807	4	Peru, F. D.	1613 Robinwood Ave.	Lakewood, O.
2138	4	Pringle, Walter R.	1590 Wagar Ave.	Lakewood, O.
2377	4	Pizer, Wm. J.	Schmidt Apts. Suite 5	Sandusky, O.
2459	4	Platts, Harry	2165 W. 89th St.	Cleveland, O.
2489	4	Pollock, E. H.	7503 Carnegie Ave.	Cleveland, O.
2965	4	Petersen, F. J.	1091 Leidle Ave.	Lakewood, O.
2994	4	Plaar, Mark F.	11511 Headley Ave.	Cleveland, O.
1344	6	Preston, J. R.	27 Elizabeth St.	Newark, N. J.
2052	6	Palm, Edward	1260 Island Ave.	Milwaukee, Wis.
2253	6	Petrosky, W. J.	308 W. Austin Ave.	Chicago, Ill.
2496	6	Peterson, J. A.	1307 Logan Ave.	Marinette, Wis.
1182	7	Parsons, H. H.	262 Collingwood Ave.	Detroit, Mich.
1201	7	Parsons, Jos.	426 Washington Ave.	Alpena, Mich.
1233	7	Parson, D. R.	840 E. 51 St. Blvd.	Chicago, Ill.
1524	7	Pickell, E. S.	Str. City of Erie	Cleveland, O.
1826	7	Pearson, John J.	684 E. Jefferson St.	Detroit, Mich.
1896	7	Palmer, A. J.	541 Townsend St.	Detroit, Mich.
1935	7	Peterson, A. M.	422 Seyburn Ave.	Detroit, Mich.
2088	7	Pauls, F. H.	315 Cherry St.	Detroit, Mich.
2147	7	Perroult, Albert	58 Cicotte St.	River Rouge, Mich.
2279	7	Parsons, Jos. W.	287 Elmhurst Ave.	Highland Park, Mich.
2133	8	Piotter, Chas. L.	225 2nd St.	Marine City, Mich.
2281	9	Pocock, Robert J.	3126 Glenwood Ave.	Toledo, O.
1738	10	Powers, John J.	85 Elizabeth St.	Ogdensburg, N. Y.
2165	11	Perkins, H. L.	1133-5th St.	Sandusky, O.
1667	12	Pierce, Wm. L.	4021 W. 5th St.	Duluth, Minn.
2288	12	Pinney, Jesse	123 S. Michigan Ave.	Duluth, Minn.
2995	4	Quinn, F. W.	43111 Prospect Ave.	Cleveland, O.
2398	6	Quackenbush, E.	403 McGill Bldg.	Montreal, Can.
1256	7	Quinlan, Wm.	744 14th Ave.	Detroit, Mich.
49	1	Robinson, Walter	326 15th St.	Buffalo, N. Y.
821	1	Rowan, Murdock	Fleming, Saskatchewan	Canada
1254	2	Reed, Wm. A.	412 Main St.	Conneaut, O.
1590	2	Randall, Frank	3914 S. Military St.	Port Huron, Mich.
56	3	Root, Frank D.		Sault Ste. Marie, Mich.
1043	3	Rand, Leroy A.	511 Park Ave.	Wilmette, Ill.
1171	3	Reid, R.	Federal Bldg.	Grand Haven, Mich.
2006	3	Rinn, Wm.	1450 Cullom Ave.	Chicago, Ill.
558	4	Rae, Frank C.		Avon Park, Fla.
708	4	Rice, Frank	7208 Clinton Ave.	Cleveland, O.

Pen. nant	Lodge	Name	Address	City
1307	4	Reid, F. H.	1540 Lewis Drive	Lakewood, O.
1522	4	Randall, A. E.	34 Walnut St.	Ashtabula, O.
1710	4	Robinson, J. W.		Sandusky, O.
1711	4	Reid, Wm. C.	2049 W. 95th St.	Cleveland, O.
1843	4	Ritchie, W. S.	1369 Edwards Ave.	Lakewood, O.
2229	4	Rydholm, Carl O.	730 High St.	Marquette, Mich.
2230	4	Rourke, John	2013 Freeman Ave.	Cleveland, O.
2239	4	Rinn, Charles	4613 Tillman Ave.	Cleveland, O.
2261	4	Rattray, G. E.	13519 Blenheim Rd.	Cleveland, O.
2341	4	Robinson, F. A.	2110 W. 93rd St.	Cleveland, O.
1635	6	Redner, Elmer E.	Care Goodrich Line	Chicago, Ill.
1936	6	Richardson, F.	654 Jefferson St.	Milwaukee, Wis.
1284	7	Rains, E. T.	Buffalo Union Furnace Co.,	Buffalo, N. Y.
1377	7	Robinson, S. O.	662 Lathrop Ave.	Detroit, Mich.
1434	7	Recor, Geo. F.	665 Sheridan Ave.	Detroit, Mich.
1435	7	Rattray, C. E.	540 Holsen Ave.	Detroit, Mich
1842	7	Recor, Robert J.	658 Baldwin Ave.	Detroit, Mich.
2347	7	Reilly, Wm. S.	819 1-2 Meldrum Ave.	Detroit, Mich.
2504	7	Rolfson, J. N.	4 VanAlstyne Blvd.	Wyandotte, Mich.
2519	7	Rathburne, J. H.	R. R. No. 1	Sombra, Can.
1848	8	Recor, Edgar	315 Westminster St.	Marine City, Mich.
2956	8	Rouvel, W. P.	536 Westminster St.	Marine City, Mich.
2962	8	Rouvel, P. E.	536 Westminster St.	Marine City, Mich.
1741	10	Russell, Henry	117 Morris St.	Ogdensburg, N. Y.
2143	10	Russell, Frank P.		Millvidge, Maine
2339	10	Russell, Wm. R.	62 Rensselar Ave.	Ogdensburg, N. Y.
2120	11	Roe, S. J.		Algonac, Mich.
2993	12	Reinhold, H. W.	Box 116	Cromwell, Minn.
1105	14	Reece, Geo. O.	1008 Clinton Ave.	St. Clair, Mich.
1950	14	Rinn, J. B.	509 2nd St.	St. Clair, Mich.
2389	14	Recor, Jos. F.	1002 Clinton Ave.	St. Clair, Mich.
2269		Richmond, U.	98 Regent St.	Port Arthur, Can.
418	1	Stevenson, Hugh	R. F. D. Seneca Rd.	Ebenezer, N. Y.
566	1	Shepard, A. M.		Goderich, Ont., Can
1114	1	Stevenson, Geo. C.	606 Mersel Bldg.	Port Huron, Mich.
1313	1	Secord, C. D.	41 Rosehill Ave.	Toronto, Can.
1412	1	Stevenson, W. H.	144 Riverside Ave.	Buffalo, N. Y.
1654	1	Stevenson, Thos.	51 Briggs Ave.	Buffalo, N. Y.
1959	1	Sexsmith, Sam'l	1448 Highland Ave.	Lakewood, O.
377	2	Sinclair, D. M.	2037 Military St.	Port Huron, Mich.
1677	2	Stevenson, Wm.	2121 7th St.	Port Huron, Mich.

Pen. nant	Lodge	Name	Address	City
1732	2	Sawyer, Edw. L.		Almont, Mich.
2189	2	Stockdale, R. N.	729 Division St.	Port Huron, Mich.
1362	3	Sinclair, C. H.	4229 N. Ashland Ave.	Chicago, Ill
1574	3	Strahan, Louis F.	1321 Wells Ave.	Escanaba, Mich.
1638	3	Shea, Jos. A.	6311 Glenwood Ave.	Chicago, Ill.
1784	3	Simons, John	307 E. North Water St.	Chicago, Ill.
2156	3	Sederland, F. A.	2506 W. 38th St.	Chicago, Ill.
184	4	Stone, H. W.	1858 Noble Rd., E.	Cleveland, O.
223	4	Saph, C. M.	715 N. 8th St.	Sheboygan, Wis.
262	4	Stough, L.	1711 W. 31st Place	Cleveland, O.
760	4	Stone, L. W.		Vermilion, O.
850	4	Slackford, W. G.	1407 Campbell St.	Sandusky, O.
921	4	Steible, John	912 2nd St.	Sandusky, O.
1088	4	Saunders, T. H.	1335 Rockefeller Bldg.	Cleveland, O.
1303	4	Sutherland, W. T.	154 N. Chest St.	Green Bay, Wis.
1472	4	Salph, J. P.	128 A. St.	Lorain, O.
1489	4	Stewart, W. G.	Care Pickands, Mather Co.	Cleveland, O.
1550	4	Simmons, T. G.	15709 Lake Ave.	Lakewood, O.
1692	4	Stanley, Edw.	10802 Clifton Blvd.	Cleveland, O.
1712	4	Storey, W. J.	30 Kingsville Ave.	Ashtabula, O.
2132	4	Sturtevant, F. C.	10209 Wilbur Ave.	Cleveland, O.
2373	4	Scheible, H. J.	1574 Mars Ave.	Lakewood, O.
2386	4	Steinmann. J. J.	4313 Apple Ave., S. W.	Cleveland, O.
2390	4	Slade, J. J.	88 Lorain Ave.	Highland Pk., Mich.
2458	4	Smith, R. A.	721-56th St.	Philadelphia, Pa.
2984	4	Scheible, F. A.	1575 Mars Ave.	Lakewood, Ohio.
2997	4	Starr, C. H.	1520 E. 85th St.	Cleveland, O.
371	6	Sullivan, D. C.	625 Prospect Ave.	Milwaukee, Wis.
496	6	Schmerman, Fred	329-21st Ave.	Milwaukee, Wis.
509	6	Scott, W. B.	488 1-2 Walker St.	Milwaukee, Wis.
1111	6	Small, E. S.	360 Hull Ave.	Benton Harbor, Mich.
1905	6	Sanders, H. L.	649 Fredrick Ave.	Milwaukee, Wis.
2364	6	Stufflebean, G. E.	63 8th St.	Muskegon, Mich.
2592	6	Sullivan, Jere. B.	623 Prospect Ave.	Milwaukee, Wis.
363	7	Swain, Martin	471 Wabash Ave., Care R. M. Northwood	Detroit, Mich.
586	7	Stewart, A. E.	95 Willis Ave., E.	Detroit, Mich.
636	7	Stoddard, Lewis	158-28th Ave.	Seattle, Wash.
1013	7	Smith, A. C.		Amherstburg, Ont.
1183	7	Stevens, E. P.	177 Jos. Campan Ave.	Detroit, Mich.
1466	7	Simpson, F. J.	911 Baldwin Ave.	Detroit, Mich.
1897	7	Sauer, George	34 Pryor Ave. E.	Detroit, Mich.

Pen. nant	Lodge	Name	Address	City
2079	7	Sullivan, Wm. E.	310 Fullerton Ave.	Detroit, Mich.
2127	7	Sullivan, Thos. D.	204 W. Midland Ave.	Bay City, Mich.
2245	7	Sloan, Bernard	1355 1-2 E. LaFayette Ave.	Detroit, Mich.
799	8	Shaw, Geo. A.		Marine City, Mich.
1246	9	Stalker, A. W.	565 Church St.	Toledo, O.
1616	9	Sullivan, N. M.	3211 Detroit Ave.	Toledo, O.
2137	9	Slavin, Jos. F.	231 City Park Ave.	Toledo, O.
55	10	Shay, W. S.	76 Patterson St.	Ogdensburg, N. Y.
1958	10	Stitt, Geo. P.	709 Donald St.	Fort William, Ont.
1769	11	Stewart, M. M.		Algonac, Mich.
1770	11	Stewart, Jos. P.		Algonac, Mich.
1780	11	Smith, Sidney H.		Algonac, Mich.
2070	11	Stewart, Harry W.		Algonac, Mich.
2428	11	Stewart, H. A.		Algonac, Mich.
2023	12	Swenson, Albert	1001 Torrey Bldg.	Duluth, Minn.
2027	12	Slater, Fred. R.	5829 Johns Ave.	Superior, Wis.
2175	12	Seeley, H. D.	1724 Ogden Ave.	Superior, Wis.
2991	12	Saunders, T. H.	518 Bear St.	Buffalo, N. Y.
1952	14	Smith, A. C.	408 Jay St.	St. Clair, Mich.
2484	14	Sawher, Walter		St. Clair, Mich.
2512	14	Smith, Jas. H.		Courtwright, Ont., Can.
2433		Solevy, John H.	19 Springhurst Ave.	Toronto, Can.
69	1	Thorpe, E. F.	532 Parkside Ave.	Buffalo, N. Y.
1050	1	Thompson, Peter	Forest Road	Williamsville, N. Y.
1591	2	Thompson, W. F.	1208 E. 5th St.	Duluth, Minn.
2163	2	Thody, F. W.	2004 7th St.	Port Huron, Mich.
1469	3	Tisdale, Geo. B.	1014 S. Lafayette St.	S. Bend, Ind.
1680	3	Taylor, Edward	4351 W. Monroe St.	Chicago, Ill.
1706	3	Trodahl, H. H.		Daggert, Mich.
1943	3	Thorsen, Louis	1904 N. Laundale Ave.	Chicago, Ill.
2068	3	Thayer, Chan. R.	8133 Dorchester Ave.	Chicago, Ill.
2387	3	Topic, Peter	634 Christiana Ave.	Chicago, Ill.
167	4	Tower, C. B.	4102 Clinton Ave.	Cleveland, O.
422	4	Thompson, J. C.	4202 Bailey Ave., S. W.	Cleveland, O.
1055	4	Tulian, G. D.	1247 E. 124th St.	Cleveland, O.
1096	4	Tear, F. S.		Painesville, O.
2957	4	Talbot, A. J., Jr.	906 E. Erie Ave.	Lorain, O.
1795	4	Thompson, M.	1864 Chapman Ave.	E. Cleveland, O.
2093	4	Tuferson, N. P.	R. F. D. No. 3, Lake Ave.	Elyria, O.
2957	4	Talbot, A. J., Jr.	906 E. Erie Ave.	Lorain, O.
2176	4	Tilden, L. S.	1829 Lake View Rd.	Cleveland, O.
1051	6	Tower, John	Milwaukee Tug Line	Milwaukee, Wis.

Pen. nant	Lodge	Name	Address	City
2123	6	Thorpe, J. E.	586-32nd St.	Milwaukee, Wis.
2338	6	Tilley, Robt. G.	214 Graham St.	Milwaukee, Wis.
2344	6	Tobin, Gordon	22 Cicotte St. E.	River Rouge, Mich.
657	7	Thorburn, John	Care W. A. Meddough	Westhope, N. D.
1410	7	Talbot, Geo. E.	2635 2nd Ave.	Highland Park, Mich.
719	8	Tomlin, Wm. J.		Marine City, Mich.
1157	8	Taylor, Jas.	157 Main St.	Marine City, Mich.
1991	10	Travis, Fred	55 King St.	Ogdensburg, N. Y.
2098	11	Townsend, C. O.	Box 188	Algonac, Mich.
3005	12	Thibideau, F. J.	709 Garfield Ave.	Duluth, Minn.
1902	8	Utley, R. Z.	307 Elizabeth St.	Marine City, Mich.
1369	1	Vrooman, G. H.	Union Towing Co.	Duluth, Minn.
1956	3	Voight, A. C.	4942 N. Leavitt St.	Chicago, Ill.
2067	3	VanVelzen, H. P.	1401 N. Avers Ave.	Chicago, Ill.
1501	4	Van Slet, A.	10101 Detroit Ave.	Cleveland. O.
1371	8	VanGorden, C.		Marine City, Mich.
63	1	Wilson, C. H., Sr.	706 W. 8th St.	Erie, Pa.
1312	1	Weinheimer, F. L.	452 Prospect Ave.	Buffalo, N. Y.
1385	1	White, A. E.	Care Washington Savings Bk.	Washington, Mich.
1647	1	Weinheimer, F. W.	452 Prospect Ave.	Buffalo, N. Y.
1669	1	Watson, C. W.	Care Saginaw Ship Bldg. Co.	Saginaw, Mich.
1762	1	Wilkinson, R. B.	133 Kensington Blvd.	Buffalo, N. Y.
2533	1	Walle, Martin	141 Butler Ave.	Buffalo, N. Y.
1181	2	Warwick, Henry	Holland Beach	Port Huron, Mich.
2095	2	Warwick, E. W.	2026 7th St.	Port Huron, Mich.
2191	2	Ward, Peter	27 Taylor St.	Port Huron, Mich.
2502	2	Wilson, Alexander	134 Crawford St.	Sarnia, Ont., Can.
410	3	Williams, David	4321 Jackson Blvd.	Chicago, Ill.
294	3	Wallace, Chas. H.	521 E. North Water St.	Chicago, Ill.
932	3	Weimar, Fred T.	2003 Estes Ave.	Chicago, Ill.
1471	3	Wilson, C. H., Jr.	832 W. 8th St.	Erie, Pa.
1722	3	Weaver, Geo. W.	Box 374	Charlevoix, Mich.
2963	3	Wilson, Edward	910 Airdrie Place	Chicago, Ill.
305	4	Weeks, J. L.	1449 Robinwood Ave.	Lakewood, O.
761	4	Woodford, C. H.	Care Pickands, Mather Co.	Cleveland, O.
965	4	Ward, John	3rd Floor Electric Bldg.	Cleveland, O.
1001	4	Walder, R. J.	232-4th St. North	St. Petersburg, Fla.
1058	4	Willoughby, W. J.	167 Victoria Ave.	Windsor, Can.
1044	4	Williams, Edw.	7507 Lawn Ave.	Cleveland, O.

Pennant	Lodge	Name	Address	City
1121	4	Woodward, E. D.	1020 Rockefeller Bldg., care L. C. Hinslea	Cleveland, O
1533	4	Wood, J. S.	2994 Scarborough Rd.	Cleveland, O.
1593	4	Wilman, Dan	3403 W. 98th St.	Cleveland, O.
1621	4	Walper, Henry	24 Exchange St.	Vermilion, O.
2160	4	Wade, F. J.	1310 W. 106th St.	Cleveland, O.
2162	4	Wendorf, H.	R. F. D. No. 3	Warren, Ohio.
2362	4	Woodford, Roy	1406 W. 25th St.	Cleveland, O.
2985	4	Wexler, R. D.	11310 Fairport Ave.	Cleveland, O.
1124	6	Warwig, J. D.	619 Prospect Ave.	Milwaukee, Wis.
1133	6	Woods, John	184 Water St.	Milwaukee, Wis.
2297	6	Winkler, Herman	414 N. 6th St.	Manitowoc, Wis.
2980	6	Whitlock, D. T.	care Illinois Steel Co. Dock	Milwaukee.
336	7	Watts, Jos. B.	617 Sheridan Road	Detroit, Mich.
352	7	Williams, W. H.	36 Claremont Ave.	Detroit, Mich.
1132	7	West, B. E.	327 St. Clair Ave.	Detroit, Mich.
1408	7	Wilson, Wm.	133 E. 84th St.	N. Y., N. Y.
1548	7	Webster, C. T.	309 Stevens Bldg.	Detroit, Mich.
1597	7	Wilkinson, C.	865 Congress St.	Detroit, Mich.
1893	7	Woodgrift, C. H.	R. F. D. No. 2	Farmington, Mich.
2072	7	Worden, Scott	189 Euclid Ave., W.	Detroit, Mich.
1837	8	Williamson, P. L.	123 Wakefield Ave.	Buffalo, N. Y.
2130	8	Welhousen, H. C.	338 Woodworth St.	Marine City, Mich.
1955	9	Warner, Raymond	409-3rd St	Toledo, O.
980	10	Walsh, Jas. A.	97 Morris St.	Ogdensburg, N. Y.
1749	10	Woods, Wm. V.	211 Washington St.	Ogdensburg, N. Y.
2076	10	Woods, Arthur F.	68 Morris St.	Ogdensburg, N. Y.
1914	11	Warner, W. E.	Box 303	Algonac, Mich.
2534	11	Warner, C. W.		Algonac, Mich.
2510	12	Wickstrom, Aug.	R. F. D. No. 1	Saginaw, Mich.
2948	12	Weborg, Irvin O.	1230 Parnell St.	Marinette, Wis.
1586	14	West, Fred A.	540 No. 3rd St.	St. Clair, Mich.
2513	14	Warwick, Geo. A.		Courtwright, Ont., Can.
2522	14	Watson, F. W.	209 N. 2nd St.	St. Clair, Mich.
2859	14	Wolvin, E. B.	535 N. Riverside Ave.	St. Clair, Mich.
2960	14	Webster, W. M.	Route 4	St. Clair, Mich.
40	3	Young, Robert	Dunham Towing Co.	Chicago, Ill.
1643	7	Yates, Wm. H.	Perry Apts.	Wyandotte, Mich.
2951	7	Yates, George	888 Mitchell St.	Detroit, Mich.
2945	3	Zwemer, George	350 W. 77th St.	Chicago, Ill.
2066	4	Zeeland, Thos. F.	1598 Woodward Ave.	Lakewood, O.

NAMES AND ADDRESSES OF ASSOCIATE MEMBERS, INTERNATIONAL SHIP MASTERS' ASSOCIATION.

Pennant	Name	Address	City
A 9	Oliver W. Upson	1310 River Ave., N. W.	Cleveland, O.
A 12	A. F. Harvey	1600 Rockefeller Bldg.	Cleveland, O.
A 13	Harvey D. Goulder	1561 Euclid Ave.	Cleveland, O.
A 15	J. S. Ashley	243 Oliver St.	Cleveland, O.
A 16	W. H. Becker		Dover, O.
A 18	Herman A. Kelly	Overlook Road, Euclid Heights	Cleveland, O.
A 27	Chas. W. Elphicke		Chicago, Ill.
A 30	Henry J. Pauly	207 14th St.	Milwaukee, Wis.
A 32	H. Coulby		Cleveland, O.
A 33	M. A. Bradley	1378 Euclid Ave.	Cleveland, O.
A 34	T. F. Newman	724 Genesee St.	Cleveland, O.
A 35	Frank W. Fletcher		Alpena, Mich.
A 36	G. A. Tomlinson		Duluth, Minn.
A 38	F. B. Wadhams	465 E. 55th St.	Cleveland, O.
A 40	John H. Schlosser	22 Hanover St.	Milwaukee, Wis.
A 46	John J. Boland	Prudential Bldg.	Buffalo, N. Y.
A 47	S. W. Gould	1595 E. 86th Street	Cleveland, Ohio
A 48	James McAlpine	1217 Chamber of Com.	Buffalo, N. Y.
A 49	W. E. Lloyd	G. Lakes Transit Co.	Buffalo, N. Y.
A 51	Harvey L. Brown	439 Richmond Ave.	Buffalo, N. Y.
A 53	J. B. Rodgers	1217 Chamber of Com.	Buffalo, N. Y.
A 55	John B. Richards	1317 Chamber of Com.	Buffalo, N. Y.
A 56	Dell. L. Tuttle	Prudential Bldg.	Buffalo, N. Y.
A 57	John Connelly	126 Fargo Ave.	Buffalo, N. Y
A 58	J. C. Oberscheimer	1217 Chamber of Com.	Buffalo, N. Y.
A 60	Adam E. Cornelius	Prudential Bldg.	Buffalo, N. Y.
A 61	J. C. Evans	Great Lakes Transit Co.	Buffalo, N. Y.
A 63	J. E. Upson	11447 Euclid Ave.	Cleveland, O.
A 67	Thos. J. Rennick	98 Bridge St.	Ashtabula, O.
A 68	H. K. Oakes		Cleveland, O.
A 69	T. A. Cheney	25 Walnut St.	Ashtabula, O.
A 70	E. Lawrence		Fairport, O.
A 71	H. W. McGean	1845 E. 79th St.	Cleveland, O.

Pennant	Name	Address	City
A 72	C. L. Hutchinson	Rockefeller Bldg.	Cleveland, O.
A 74	H. B. Drake	2309 E. 93rd St.	Cleveland, O.
A 76	C. C. Lankin	Asot Apts., Crawford Rd.	Cleveland, O.
A 77	Jas. O'Connor	167 Morgan St.	Tonawanda, N. Y.
A 78	F. H. Burrill	54 Spruce St.	Ashtabula, O.
A 81	E. C. Collins	1927 E. 97th St.	Cleveland, O.
A 82	C. C. Canfield	10215 Winchester Ave., N. E.	Cleveland, O.
A 85	Thos. Sheriffs	277-25th St.	Milwaukee, Wis.
A 86	Carl C. Joys	358 Hanover St.	Milwaukee, Wis.
A 87	Jos. Davidson	356 Virginia St.	Milwaukee, Wis.
A 89	A. W. Thompson	1304 Rockefeller Bldg.	Cleveland, O.
A 93	Mathias Young	Lehigh Valley Line	Buffalo, N. Y.
A 100	H. H. Thompson	1212 E. 4th St.	Duluth, Minn.
A 101	Daniel D. Murray	2028 E. Superior St.	Duluth, Minn.
A 105	Clarence Richardson	Leader-News Bldg.	Cleveland, O.
A 108	James Mowatt		Chicago, Ill.
A 109	Thomas Becton		Port Huron, Mich.
A 120	Wm. Nagle	Care Whitman Mach. Co.	Buffalo, N. Y.
A 127	D. C. Deegan	6254 Stony Island Ave.	Chicago, Ill.
A 128	R. D. Mitchell	965 Rockefeller Bldg.	Cleveland, O.
A 129	Lieut. J. C. Clarke		Cleveland, O.
A 130	Herman Oertling	509-50th St.	Milwaukee, Wis.

NAMES AND ADDRESSES OF HONORARY MEMBERS, INTERNATIONAL SHIP MASTERS' ASSOCIATION

Pennant	Name	Address	City
H 16	J. S. Henderson	3448 Carroll Ave.	Chicago, Ill.
H 17	Wm. Langell		St. Clair, Mich.
H 18	George Bugge		St. Clair, Mich.
H 19	J. H. Trumble		St. Clair, Mich.
H 20	S. A. Earle		St. Clair, Mich.
H 21	Wm. A. Morrison		St. Clair, Mich.
H 22	Wm. Wright		St. Clair, Mich

Penant	Name	Address	City
H 23	Wesley C. Brown		St. Clair, Mich.
H 24	W. T. Landon		St. Clair, Mich.
H 25	H. G. Inman	27-57th Ave., E.	Duluth, Minn.
H 26	C. B. Carroll	R. F. D.	Duluth, Minn.
H 29	A. McDonald	W. 3rd Street	Oswego, N. Y.
H 72	Robert Brown	49 W. Seneca St.	Buffalo, N. Y.
H 73	W. M. Connelly	715 Rockefeller Bldg.	Cleveland, O.
H 74	Morris Crawford	74 Michigan Ave.	Buffalo, N. Y.
H 75	John Gehm	45 Elk St. Market	Buffalo, N. Y.
H 76	P. J. Gunn	120 Michigan Ave.	Buffalo, N. Y.
H 77	J. A. Grodzinski	Ellicott Sq.	Buffalo, N. Y.
H 78	Thomas Hayden	360 Main St.	Buffalo, N. Y.
H 79	Daniel Hourigan		Oswego, N. Y.
H 80	A. H. Kropman	340 Washington St.	Buffalo, N. Y.
H 81	L. Lautenslager, Jr.	Care Hands & Johnson Tug Office,	Buffalo, N. Y.
H 82	John E. Morris	162 Bailor St.	Buffalo, N. Y.
H 83	Albert Norton	227 Franklin St.	Buffalo, N. Y.
H 84	Thomas Quinn	Foot Michigan Ave., Care Hedstrom Coal Dock Office	Buffalo, N. Y.
H 85	J. A. Weisback	202 Main St.	Buffalo, N. Y.
H 86	Harry Wright	17 Elk St.	Buffalo, N. Y.
H 87	A. J. Green	Summit Ave.	Lakewood, O.
H 88	E. W. Dissette	1892 E. 87th St.	Cleveland, O.
H 109	S. W. Robinson		Holland, Mich.
H 110	Church, Hon. Thos.		Toronto, Ont.
H 112	Chas. Norton		Marine City, Mich.
H 113	R. A. Cottrell	444 N. Main St.	Marine City, Mich.
H 116	Jno. W. Brown		Mount Ayr, Ind.
H 117	A. Bassett		Chicago, Ill.
H 118	Jos. Davish		Chicago, Ill.
H 119	Dan. Henderson		Cleveland. O.
H 120	H. J. Regan		Marine City, Mich.
H 121	M. B. Roach		Marine City, Mich.

MEMBERS OF THE INTERNATIONAL SHIPMASTER'S ASSOCIATION.

Arranged According to Pennant Numbers
Penant Numbers 15 to 464 Inclusive.

Pennant	Lodge	Name
15	7	Ivers, J. H.
17	1	Dunn, John
22	1	Hogg, G. L.
40	3	Young, Robert
44	4	Chapman, A. C.
49	1	Robinson, Walter
50	1	Corcoran, Joseph
55	10	Shay, W. S.
56	3	Root, F. D.
63	1	Wilson, Chas. H., Sr
69	1	Thorp, E. F.
89	2	Kendall, H. J.
104	1	Berow, Joseph H.
105	1	Durker, Henry
108	1	Murphy, Henry
116	1	Coleman, Jeremiah
120	1	Grasser, George
129	1	Murphy, S. M.
140	2	Powrie, P. F.
149	3	Carr, James
160	4	Hoover, N. E.
164	4	Lowe, James B.
167	4	Tower, Chas. B.
176	4	Mallory, G. B.
182	4	Lowe, John
184	4	Stone, Henry W.
197	4	Lyons, R. J.
199	3	Disher, William
223	4	Saph, C. M.
234	4	Benham, C. E.
247	4	Fick, F. A.
253	7	Armstrong, Byron
254	3	Moore, H. R.
262	4	Stough, Lafayette
269	4	Holmes, Jos. A.
274	4	Collier, Wm. A.
290	4	Call, Richard
294	3	Wallace, Chas. H.
300	3	McCambridge, T.
302	4	Mallory, D. H.
305	4	Weeks, J. L.
307	4	Ames, William D.
315	1	McEachern, A.
317	1	Drake, A. B.
319	1	Buie, Daniel
336	7	Watts, Jas. B.
339	4	Mulholland, Matt.
350	14	O'Connor, R.
352	7	Williams, W. H.
358	4	Olsen, Olaf
362	3	Higgins, Thomas
363	7	Swain, Martin
370	3	Clow, J. M.
371	6	Sullivan, D. C.
377	2	Sinclair, D. M.
388	2	Harrow, W. B.
391	4	Hinslea, Chas. H.
394	1	Johnson, John
410	3	Williams, David
412	3	Moore, Chas. K.
418	1	Stevenson, Hugh
422	4	Thompson, J. C.
433	4	Cleveland, C. R.
439	6	Carter, W. J.
450	3	Minskey, J. P.
464	7	Nicholson, D.

Pennant	Lodge	Name
477	6	Maxon, F. C.
488	6	Anderson, O. N.
496	6	Schwerman, Fred
498	6	Leisk, John
500	6	Leisk, Henry
501	6	Doak, John A.
505	6	Boyce, H. M.
506	4	Hawgood, A. H.
507	6	McSweeney, John
509	6	Scott, W. B.
515	6	McGregor, W. F.
528	7	Hutton, John T.
532	7	Duncanson, D. F.
542	3	McDonald, Geo.
543	3	MacLean, Donald
553	9	Harlow, Wm. J.
557	2	Laframboise, Jas.
558	4	Rae, Frank C.
566	1	Shepard, A. M.
570	4	Anderson, Joseph
572	6	Hubbard, Chas. H.
576	2	Maitland, Henry
586	7	Stewart, A. E.
612	7	Fox, Arthur J.
613	9	Meikleham, Thos.
629	7	Ferguson, Robt. E.
636	7	Stoddard, Lewis
641	2	Harper, Geo.
642	3	Cochrane, David
657	7	Thorburn, John
666	7	Holbrook, F. H.
694	4	Peterson, C. A.
695	4	Miller, C. D.
698	4	Bell, Geo. A.
708	4	Rice, Frank
719	8	Tomlin, Wm. J.
732	7	Mara, James
738	4	Cottrell, Geo. L.
750	7	Livingston, W., Jr.
755	7	McLarty, James
760	4	Stone, Lewis W.
761	4	Woodford, C. H.
767	7	McIntosh, M. G.
786	8	Hagan, Wm.
799	8	Shaw, G. A.
804	2	Brown, C. T.
810	4	Lalonde, Anthony
821	1	Rowan, Murdock
826	9	Herrick, T. C.
827	1	Cunningham, Jas.
850	4	Slackford, W. G.
854	9	Ashley, Ed. G.
856	9	McKinley, Jas.
861	2	Chambers, A. P.
875	7	McCallum, H. C.
891	1	Madigan, Jas. A.
899	3	Elliott, A. M.
902	3	Robertson, Geo.
910	7	McLean, Wm.
914	4	Carlos, W. S.
921	4	Steible, John
932	3	Weimar, Fred T.
941	3	McIntyre, Allen
952	4	Eldridge, H. C.
959	4	Moody, Wm. H.
960	4	Lampoh, Jos.
965	4	Ward, John
971	4	Fleck, James A.
972	7	McAlpin, John
973	3	Brion, James W.
980	10	Walsh, James A.
982	4	Benham, Wm. P.
983	4	Detlifs, Emil
986	3	Gallino, A. P.
987	7	Hutchins, F. C.
988	4	Megervey, Wm.
994	2	Manuel, Fred W.
995	2	Budd, Melvin A.
1001	4	Walder, R. J.
1004	4	Hoag, Wm. S.
1010	4	Laframboise, Jacob
1012	2	Cowles, Wm. J.

Pennant	Lodge	Name
1013	7	Smith, A. C.
1014	2	Johnston, Edward
1016	1	Green, John D.
1017	4	Hunt, Wm. J.
1021	2	Bennett, Jas. S.
1026	4	Fox, Benson
1029	1	Herbert, Fred
1032	6	Moody, Chas. E.
1035	4	Ingraham, F. E.
1038	4	Allen, Sam'l C.
1039	4	Post, Jos. W.
1041	4	Ferguson, Wm.
1043	3	Rand, Leroy A.
1044	6	Williams, Edward
1045	1	Wilkins, W. W.
1047	1	Martin, Edward
1050	1	Thompson, Peter
1051	6	Tower, John
1052	7	McGuire, Norman
1054	7	Goodrow, Frank
1055	4	Tulian, G. D.
1058	4	Willoughby, W. J.
1059	4	Driscoll, Jas. H.
1060	1	Gibson, James R.
1065	7	McIntosh, John L.
1068	4	Bouille, David
1069	4	McGarry, John
1070	4	Cody, F. B.
1073	7	Mahon, A. J.
1075	7	Donaghue, E. J.
1076	7	Crosby, Wm. J.
1079	9	Lockhart, D. O.
1081	7	Johnson, Alex.
1082	7	Mallette, Paul A.
1085	7	Clark, Alex. A.
1088	4	Saunders, Thos. H.
1091	1	Howe, Alfred B.
1095	6	Duddleson, John W.
1096	4	Tear, F. S.
1101	2	Burns, John
1105	14	Reece, Geo. O.
1106	4	Heaton, Chas. H.
1109	2	Neal, Jas. S.
1111	6	Small, E. S.
1112	7	McCarthy, Daniel
1114	1	Stevenson, Geo. C.
1115	4	Jones, John F.
1116	4	Allen, C. L.
1117	7	Burke, Enos J.
1121	4	Woodward, Chas. D.
1122	7	Kearns, Joseph
1124	6	Wanvig, John D.
1125	4	Christensen, A.
1126	9	Benson, Dan.
1127	4	Dyble, Edward
1131	9	Jex, H. N.
1132	7	West, Bert E.
1133	6	Woods, John
1135	4	Craigie, Alex.
1136	4	Hergenrother, J. A.
1137	7	Balfour, C. C.
1140	1	Hansen, A. C.
1147	9	Deville, D. F.
1148	6	Olson, Sam
1150	14	Greening, Wm.
1151	7	Wilkinson, Fred
1155	1	Montgomery, J. W.
1157	8	Taylor, James
1169	1	O'Day, Simon
1170	3	Minter, Thos. B.
1172	3	Christopher, S.
1175	7	Millen, P. L.
1177	4	Burr, James L.
1179	1	O'Neil, Patrick
1181	2	Warwick, H'y.
1182	7	Parsons, H. H.
1183	7	Stevens, E. P.
1184	4	Hinslea, Henry
1185	4	Parson, F.
1187	1	Hartman, John J.
1193	7	Bertrand, Frank
1194	7	Maddock, J. B.

Pennant	Lodge	Name
1197	4	Hand, A. S.
1198	8	Brown, Hector
1199	8	McCann, S. B.
1201	7	Parsons, Joseph
1203	7	Maddock, J. C.
1204	4	Hahn, C. P.
1207	2	Neal, Wm. D.
1208	12	Jacobson, Jacob E.
1219	4	England, Rich. W.
1224	4	McAlpine, Hugh
1229	8	Kenyon, S. W.
1233	7	Parsons, Dudley R.
1236	4	Bouille, Pierre
1237	4	Kelly, Henry
1238	4	Murdock, Jno. A.
1240	2	Kelly, James W.
1241	2	Canartney, M.
1243	8	Kuhn, John
1244	7	Clifford, Alex.
1246	9	Stalker, A. W.
1247	6	Cook, J. G.
1249	6	Soleau, O. J.
1252	9	Cunningham, J. J.
1254	2	Reed, Wm. A.
1256	7	Quinlan, Wm.
1257	8	Cottrell, Jas. E.
1266	9	Kirker, Fred
1269	3	Patterson, Wm.
1284	7	Rains, Ed. T.
1294	1	Burns, John J.
1295	4	Landfair, B. M.
1303	4	Sutherland, Wm. T.
1304	9	Harlow, Frank T.
1307	4	Reid, Fred'k H.
1308	3	Campau, Louis A.
1312	1	Weinheimer, F. L.
1313	1	Secord, C. D.
1314	1	Grant, J. C.
1315	12	MacGregor, Wilson
1321	4	Anderson, Mathew
1328	11	Ames, Augustus
1329	4	Peterson, Peter A.
1344	6	Preston, John R.
1352	4	Leckie, Frederic L.
1355	7	Christie, Charles
1356	7	Baker, Harris W.
1359	3	Higgie, J. F.
1360	6	Dailey, Michael
1361	4	Faragher, William
1362	3	Sinclair, Cyrus H.
1363	3	Elliott, Frank
1368	4	Anderson, Chas. A.
1369	1	Vrooman, Geo. H.
1371	8	Van Gorder, Chas.
1374	7	Callam, Alex. C.
1377	7	Robinson, Salem O.
1381	3	Lamoreaux, Joseph
1384	4	Bartel, A. E.
1385	1	White, A. E.
1386	4	Ferguson, John A.
1388	1	Klock, Everett
1392	1	Peterson, M. S.
1393	1	Clark, John C.
1394	4	Johnson, Martin
1395	4	Nordahl, Arnold
1397	7	Baker, Burton S.
1402	8	Markle, S. J.
1403	4	Goodwin, Jas. F.
1408	7	Wilson, Wm.
1410	7	Talbot, Geo. E.
1411	7	Anderhalt, L. P.
1412	1	Stevenson, Wm. H.
1415	4	MacLachlan, A. H.
1417	7	Forbes, Alexander
1421	8	Hill, Fred C.
1423	4	Banker, Geo. H.
1425	3	Edwards, M. L.
1427	3	Bough, Chas.
1433	7	MacLean, Wm. J.
1434	7	Recor, Geo. F.
1435	7	Rattray, Chas.
1437	3	Kohnert, J. E.

Pennant	Lodge	Name
1438	4	Colbert, Thos.
1442	4	Keller, Alva H.
1443	7	Iler, Walter C.
1444	3	Olsen, John K.
1445	3	Cullnan, John
1446	4	Fitch, Edward
1447	7	Craig, John C.
1454	4	Bailey, F. A.
1457	3	Fitch, Edward
1462	4	McDonald, Wm.
1464	1	Finnegan, Owen P.
1465	7	Flaherty, Joseph
1466	7	Simpson, Fred. J.
1467	9	Dunseith, John
1469	3	Tisdale, Geo. B.
1471	3	Wilson, Chas. H., Jr.
1472	4	Saph, Jay P.
1479	11	Jackson, Rich. C.
1482	4	Packer, Wm. H.
1483	4	Ellis, Frank S.
1487	9	Lyons, Jas. B.
1489	4	Stewart, Walter G.
1490	11	Lyons, Stephen A.
1492	4	Dixon, Alfred
1493	4	Gould, Francis E.
1494	12	Erhart, John W.
1495	2	Cassin, Jas.
1497	1	Herbert, James G.
1498	3	Anderson, Sigverdt
1500	4	Thompson, Robt.
1501	4	Vanslet, Abram
1503	2	Bradshaw, John L.
1504	2	McLean, J. C.
1508	1	Clarke, W. E.
1513	6	Anderson, Gus. E.
1519	1	Dunn, Thos.
1522	4	Randall, A. E.
1523	4	Culp, Hamilton
1524	7	Pickell, E. S.
1525	6	Bennett, Geo. J.
1526	7	Gordon, D. G.
1527	6	Hendricksen, Otto
1528	4	Pringle, Rob't C.
1531	14	Brown, Nelson
1532	6	Jones, Warren
1533	4	Wood, J. S.
1534	8	Dupiue, Frederic A.
1536	3	Evans, Rob't T.
1539	6	Dority, Frank A.
1542	4	Buchanan, James
1547	7	Hosner, V. L.
1548	7	Webster, Chas. T.
1550	4	Simmons, Thos. G.
1552	6	Garrity, Thomas
1553	4	Holdridge, George
1555	2	Hughes, Henry S.
1557	4	McGarry, George
1559	9	Lohr, John M.
1561	6	McShane, Daniel W.
1562	1	Milne, John
1563	4	Conkey, Charles M.
1566	6	DuClos, Napoleon
1568	3	Green, Arnold
1572	4	Moore, Frank
1574	3	Strahan, Louis F.
1577	4	Burt, George G.
1578	1	Kelley, Andrew
1580	4	Meeker, S. E.
1586	14	West, Fred A.
1585	7	Gatfield, E. D.
1582	7	Merckel, C. G.
1587	4	Millikin, Wm.
1588	4	Grashaw, Walter
1589	4	Burns, T. C.
1590	2	Randall, Frank
1591	2	Thompson, W. F.
1592	7	Bain, A. J.
1593	4	Wilman, Dan
1594	12	Maloney, Forrest
1595	4	Girardin, W. L.
1596	4	Gustafson, Peter
1597	7	Wilkinson, Chas.

Pennant	Lodge	Name
1603	3	Johnson, Carl
1605	3	Bright, W. T.
1609	2	Carlisle, Theo. J.
1610	1	Barclay, John
1612	7	Hansen, John T.
1616	8	McDonald, G. W.
1617	3	Lang, Julius
1619	3	McQueen, W. A.
1621	4	Walper, Henry
1622	4	Moore, S. S.
1623	7	Norvell, Walker
1629	2	Fowler, Thomas
1631	7	McCarthy, John
1633	1	Gebhard, Frank R.
1635	6	Redner, Elmer E.
1638	3	Shea, Jos. A.
1641	4	Anderson, P. A.
1643	7	Yates, Wm. H.
1644	7	Ludington, Lewis
1651	1	Brooks, Wm. H.
1652	1	McDonald, J. A.
1654	1	Stevenson, Thos.
1656	2	Montgomery, W. L.
1661	2	Knapp, R. H.
1664	2	Crooker, D. M.
1667	12	Pierce, W. L.
1668	2	Ditzel, Henry E.
1669	1	Watson, C. W.
1670	1	Drury, John E.
1671	7	Ashley, W. A.
1672	14	Doner, James
1673	7	Brown, Claud D.
1675	4	Mooney, Wm.
1676	9	Sullivan, N. M.
1677	2	Stevenson, Wm.
1678	6	Lee, Iver M.
1679	4	Fowlie, Andrew
1680	3	Taylor, Edward
1682	6	McCauley, C.
1683	7	Dorry, Benj. B.
1684	2	Geel, Guy G.
1687	1	Koch, Robert
1688	7	Leonard, Roy M.
1689	7	Autterson, Chas.
1690	6	Kearns, Chas. J.
1691	6	Brownell, Jos. A.
1692	4	Stanley, Edward
1694	7	Morrison, J. N.
1695	3	Miller, Chas. F.
1696	6	Clausson, Gus T.
1698	3	Meyer, Gust.
1699	3	Hansen, Andrew
1700	3	Anderson, Alex. A.
1702	4	Moore, Wm. E.
1704	4	Mason, Chas. D.
1705	1	Acton, Joseph
1706	3	Trodahl, H. H.
1707	7	Hormig, Wm. F.
1709	4	Talbot, A. J.
1710	4	Robinson, John W.
1711	4	Reid, Wm. C.
1712	4	Storey, Wm. J.
1713	4	Morton, Edw. R.
1714	4	Birmingham, Jas.
1715	8	Booth, Wm. H.
1716	1	Bennett, Chas. D.
1717	1	Crawford, Geo. B.
1719	1	Donahue, Joseph
1720	4	Olsen, Oscar
1722	3	Weaver, Geo. W.
1723	1	Gibson, James
1724	3	Morgan, M. F.
1725	7	McDonald, John A.
1726	1	O'Hagan, John
1727	1	Broderick, Benj.
1728	1	Hefferman, Jas.
1730	2	Crockett, Tyler J.
1731	2	Comins, Alonzo B.
1732	2	Sawyer, E. S.
1733	10	Anderson, S. V.
1734	10	Leonard, M. A.
1736	10	Murphy, H. A.

Pennant	Lodge	Name
1737	10	Nelson, Chas. O.
1738	10	Powers, John J.
1739	10	Dunn, Chas. A.
1740	10	Nelson, A. C.
1741	10	Russell, Henry
1746	10	Kinch, Geo. H.
1749	10	Woods, Wm. V.
1753	1	O'Hagan, Hugh
1754	1	Hanley, Chas. C.
1756	1	Holmberg, Henry
1757	1	McLaren, Benj. C.
1759	1	Hayes, W. J.
1760	1	Hefferman, T. N.
1762	1	Wilkinson, Rob't B.
1763	6	Mackey, Melvin
1764	4	Peterson, F. J.
1765	6	Larsen, N. L.
1766	14	Doner, Thos. F.
1767	2	Johnston, Martin
1768	2	Brown, Chas. D.
1769	11	Stewart, Mil'rd M.
1770	11	Stewart, Jas. P.
1771	11	Galton, F. D.
1772	11	Kendall, Douglas
1774	11	Little, Nelson T.
1776	11	Kenworthy, Sam'l J.
1778	11	Moore, S. D.
1779	11	Grant, Theo.
1780	11	Smith, Sidney H.
1781	11	Mitchell, Alvin
1784	3	Simons, John
1785	7	Klinger, Geo. N.
1786	7	Hackett, Thos. H.
1787	7	DeNike, Lee C.
1789	4	Logan, John A.
1790	12	Massey, Chester
1792	7	Peltier, Robt. D.
1795	4	Thompson, M. S.
1797	7	Judson, H. W.
1799	10	McDonald, John
1800	10	Loveless, Fred
1803	4	Durney, John
1804	4	Nelson, Olaf
1807	4	Perew, Frank D.
1809	1	Lucas, W. J.
1810	1	McClinton, W. D.
1814	1	McLeod, Dugald
1815	7	Fox, Chas.
1816	4	Allen, Merton G.
1817	1	Montgomery, Jno. A.
1818	6	Oakley, James
1819	6	Carus, Edward
1820	14	Hollingshead, John
1821	4	Moore, George W.
1826	7	Pearson, John J.
1827	7	Burns, Geo. C.
1828	7	Ernest, C. W.
1829	7	Nesbit, W. K.
1830	7	Byers, J. Clark
1832	7	Honner, G. W.
1833	6	McCauley, Chas.
1834	7	Hayward, Geo.
1835	14	Lowes, Jos. H.
1836	2	Millard, Wm. L.
1837	8	Williamson, P. L.
1842	8	Recor, Rob't Jas.
1843	4	Ritchie, W. S.
1844	1	Clarke, Jas. M.
1845	1	Chilson, W. E.
1848	8	Recor, Edgar O.
1851	7	Huntoon, Fred A.
1852	7	Jagenow, Wm.
1854	7	McKay, Daniel
1857	3	McKenzie, Ken.
1858	3	Post, Samuel G.
1860	6	Olson, Samuel
1861	6	Cavanaugh, J. F.
1864	10	Dubrule, E. A.
1865	4	Noble, John
1867	1	Abel, Wm.
1878	6	Hoxie, A. K.
1881	7	Hoffman, Frank

Pennant	Lodge	Name
1884	6	Hays, John C.
1885	6	Evanson, Arnold
1888	7	Ogden, B. F.
1890	10	Casey, Henry
1891	10	Delaney, Geo. J.
1892	1	Apsey, A. W.
1893	7	Woodgrift, Chas. H.
1896	7	Palmer, Alfred J.
1897	7	Sauer, Geo.
1899	7	MacAulay, Geo.
1901	7	Lightbody, J.
1902	8	Utley, R. Z.
1903	8	Beall, A. R.
1904	8	Mitchell, Dana R.
1905	6	Sanders, H. L.
1908	6	Cartwright, Peter
1909	3	Jaenke, Herman M.
1910	3	Berentsen, Jacob
1911	10	Gamash, Frederick J.
1914	11	Warner, W. E.
1915	14	Kenyon, Wm. S.
1916	9	Adams, Joseph
1920	7	Gleason, John F.
1924	14	Hayward, E. H.
1926	1	Mallory, R. A.
1936	6	Richardson, Frank
1937	7	McGowen, Hugh L.
1940	6	Alexander, Algie
1943	3	Thorsen, Louis
1945	1	Burns, James
1946	9	Holman, Henry
1949	14	Conlin, Thos. N.
1950	14	Rinn, J. B.
1951	2	Foster, John
1952	14	Smith, Alex. C.
1953	14	Autterson, Jos. W.
1954	4	Cowie, Andrew
1955	9	Warner, Raymond
1956	3	Voight, A. C.
1958	10	Stitt, Geo. P.
1959	1	Sexsmith, Sam'l
1960	8	Baird, John D.
1961	7	Cannally, James T.
1962	1	Myers, Ralph D.
1964	14	Morse, A. R.
1967	8	Lavely, L. J.
1970	6	Franklin, W. E.
1973	4	Malott, J. W.
1974	3	Fischer, Robert
1975	3	Eger, W. W.
1976	1	Johnson, Alfred
1977	9	Cornwall, Alton W.
1988	7	Jones, Charles A.
1990	8	McNeill, Walter H.
1991	10	Travis, Frederick
1995	1	Morin, Thomas F.
1996	3	Leith, Wm. R.
1998	2	Krenkel, Chas. F.
1999	2	McDonald, J. E.
2000	8	Langell, Leonard P.
2002	4	Dunn, P. H.
2003	10	Dessert, Wm. G.
2004	3	Hansen, Hans
2005	3	Lindale, T. T.
2006	3	Rinn, Wm.
2007	1	Ernest, Frank H.
2010	3	Morrison, Dougal
2014	1	Jansen, Jacob C.
2016	1	McFadden, M. L.
2022	2	Frilay, Herman W.
2023	12	Swenson, Albert
2024	12	Jones, Albert M.
2025	12	Glockle, M. B.
2027	12	Slater, Fred R.
2030	12	Fox, Henry
2032	12	Doherty, John E.
2034	12	Brower, Harry F.
2037	12	Glenn, Martin E.
2039	12	Murphy, Oswald
2042	12	Green, Chas. H.
2044	12	Johnson, Henry
2046	12	McDougall, Thos.

Pennant	Lodge	Name
2047	11	Atkinson, Geo. A.
2049	1	Green, Joseph M.
2052	6	Palm, Edward
2055	1	Coughlin, Michael
2058	4	Dodge, Wm. J.
2061	3	Johnson, Geo. E.
2064	4	Clegg, Harry J.
2066	4	Zeland, Thomas J.
2067	3	VanVelzen, H. P.
2068	3	Thayer, C. R.
2069	14	Finnegan, Herbert
2070	11	Stewart, Harry W.
2071	11	Campbell, R.
2072	7	Worden, Scott
2076	10	Woods, Arthur F.
2078	8	Burrows, Arthur W.
2079	7	Sullivan, Wm. E.
2080	7	Ellis, Claude A.
2082	1	Hutchins, H. J.
2085	12	Hansen, Hans C.
2088	7	Pauls, Frederick H.
2092	4	Nelson, S.
2093	4	Tufverson, N. P.
2095	2	Warwick, Ernest W.
2096	4	McLachlan, Wm. H.
2097	7	Atkinson, C. L.
2098	11	Townsend, Chas. A.
2099	3	Matson, Sigfried W.
2102	6	Cook, Jacob F.
2103	14	Campbell, Robert
2104	14	Autterson, John
2105	14	Hartman, Augustus
2106	14	Burk, Jos. C.
2107	14	Brines, Jesse M.
2111	1	Larson, John A.
2115	7	Davie, D. W.
2116	4	Hughes, Joseph
2117	4	Glen, Alexander
2120	11	Roe, Stephen J.
2121	3	McClintock, John
2122	6	Grimm, Otto C.
2123	6	Thorpe, John E.
2124	6	Mellan, Gunerius
2127	7	Sullivan, Thos. D.
2130	8	Willhousen, H. C.
2132	4	Sturtevant, Fred. C.
2132	12	Nelson, F. E.
2133	8	Piotter, Chas. L.
2134	4	Neville, R. J.
2137	9	Slavin, James F.
2138	4	Pringle, Walter R.
2141	4	Dunn, W. R.
2142	4	McNaughton, Roy
2143	10	Russell, Frank P.
2144	7	Morrison, Alvin A.
2146	7	Loughlin, Geo. F.
2147	7	Perrault, Albert
2149	14	Jerome, Willis R.
2150	14	Brines, Samuel
2151	14	Doner, George R.
2153	14	Aitken, H. J.
2154	3	Emersen, S. K.
2156	3	Seiderland, F. A.
2159	4	Collins, Allen
2160	4	Wade, Frederick J.
2161	4	McDonald, John J.
2162	4	Wendorf, H.
2163	2	Thody, Fred W.
2164	14	Mussman, A.
2165	11	Perkins, Horace L.
2166	3	Anderson, Herbert E.
2167	3	Madden, John H.
2168	2	Montgomery, Geo. A.
2170	6	Andrews, Andrew
2171	1	Campbell, Chas.
2172	1	Delaney, W. F.
2173	12	Lyons, Geo. A.
2174	12	MacLeod, Andrew R.
2175	12	Seeley, Harrison D.
2176	4	Tilden, L. S.
2178	14	Alexander, Robt.
2179	14	Albinson, Clarence R.

Pennant	Lodge	Name
2181	12	Lewis, Frank
2188	1	Phillips, James J.
2189	2	Stockdale, Roy N.
2191	2	Ward, Peter
2193	11	Cole, F. S.
2194	12	Ege, Gustaf
2195	7	Littlejohn, Wm.
2197	7	McDonald, Fred
2199	4	Morrison, Wm. F.
2212	6	Johnson, Oscar A.
2213	8	Langell, Thomas
2216	3	Peterson, Martin
2218	11	Morrison, E. R.
2221	12	Gunderson, G.
2224	10	Curran, John F.
2226	6	Kruwell, W. E. H.
2227	6	Behm, Paul
2229	4	Rydholm, Carl A.
2230	4	Rourke, John
2235	6	Fowler, Christa C.
2239	4	Rinn, Charles
2240	9	Dagon, Dennis
2241	2	Jamison, Alex. W.
2242	1	Healy, James J.
2244	3	McGarity, Daniel J.
2245	7	Sloan, Bernard J.
2251	12	Dyrness, Ole
2252	12	Hector, Fred C.
2253	6	Petroskey, Walter
2254	4	Durkee, W. W.
2256	7	Oman, Chas. H.
2259	2	McMartin, Frank
2260	6	Leisk, Henry A.
2261	4	Rattray, E. Gordon
2262	4	Francis, Lawrence J.
2266		Ferguson, W. J.
2269		Richmond, U. G.
2271		Nuttell, Robert E.
2278		McLeod, Norman J.
2279	7	Parsons, Jos. W.
2281	9	Pocock, Robert J.
2282	4	DeLand, W. A.
2283	6	McCauley, John P.
2284	2	Myers, George F.
2287	12	Johns, John F.
2288	12	Pinney, Jesse
2291	4	Johnson, Roy E.
2293	1	Barry, Fred.
2297	6	Winkler, Herman
2300	4	Levis, George
2331	3	Emigh, Herbert W.
2334	12	Ditzel, Edward J.
2335	12	Bourassa, Albert
2336	8	Lockhart, Asa
2337	4	Aimsbary, Walter F.
2338	6	Tilley, Robert G.
2339	10	Russell, Wm. R.
2340	3	Ferguson, James J.
2341	4	Robinson, Frank
2343	6	Norteman, L. W.
2344	6	Tobin, Gordon
2347	7	Reilly, Wm. S.
2350	1	Oliver, Percy
2351	12	Ness, Martin O.
2352	10	Lago, Thomas
2359		Marcellias, W. C.
2362	4	Woodford, Roy F.
2364	6	Stuffelbeam, G. E.
2371	4	Gardner, Chas. B.
2372	4	McCarthy, Patrick
2373	4	Scheible, Herman J.
2374	12	Ege, Louis
2376	12	Miller, Thos.
2377	4	Pizer, W. J.
2381	3	Hillstrand, Herman
2382	1	McKenzie, Alex.
2386	4	Steinman, John J.
2387	3	Topic, Peter
2388	3	Cummings, George
2389	14	Recor, Joseph F.
2390	4	Slade, J. J.
2391	4	Martin, Peter J.

Pennant	Lodge	Name
2395	1	Kennedy, John
2397	1	Carr, James
2398	6	Quackenbush, Emmet
2399	10	Gooden, Frank
2400	3	Brookhyser, Geo.
2404	2	Hayes, John E.
2413		Housberger, Wm.
2417	6	Maynard, Harry W.
2418	3	Cullnan, Patrick J.
2420	3	Napier, Harry N.
2428	11	Stewart, Harvey
2430	11	Haydet, Wm. F.
2433		Solevy, John Henry
2443	8	Baird, Leonard M.
2444	8	Booth, Herman
2447	4	Hibbard, Grant C.
2450		Buchanan, John
2452	7	Nielsen, John
2454		Miller, Roy McLean
2455	12	Massey, J. Floyd
2456	4	Jensen, J. P.
2458	4	Smith, R. A.
2459	4	Platts, Harry
2461	12	Hansen, Lars P.
2462	12	Greene, Peter
2463	4	Davenport, Frank
2464	4	LeRoy, David M.
2466	4	Mohr, Chas. H.
2470	3	Hougneland, Luther
2471	1	Page, Geo. H.
2472	3	Fleming, Jas. H.
2473	3	Ohlke, Chas. H.
2474	2	Burke, Edward C.
2475	2	Biddlecome, Frank
2476	2	Crawford, R. M.
2478	2	Nelson, H. J.
2479	7	McCormick, J. C
2480	12	O'Meara, J. H.
2483	4	Carsten, Chas.
2484	14	Sawhur, W. M.
2485	14	Miller, N. H.
2486	14	Anderson, W. M.
2487	14	Lawrence, F. J.
2488	7	Stewart, R. G.
2489	4	Pollock, E. H.
2490	6	Noble, A. M.
2491	10	Noble, E. O.
2492	2	May, E. W.
2493		Baylis, F. C.
2494		Angus, R. B.
2495	2	Edwards, J. A.
2496	6	Peterson, J. A.
2498	10	Bryan, Wm. T. J.
2499	4	Ott, Frank H.
2500	3	Anderson, Chas.
2501	7	Emig, Edward
2502	2	Wilson, Alex.
2503	4	Frankforther, R. O
2504	7	Rolfson, J. N.
2505	14	Cahours, H. J.
2506	12	Arntsen, T. A.
2507	2	Currie, C. C.
2508	2	Currie, A. L.
2509	4	Bourgeois, E. M.
2510	12	Weckstrom, A. W.
2512	14	Smith, J. H.
2513	14	Warwick, G. A.
2514	11	Smith, J. S.
2515		Guy, John
2516	12	Larsen, Jas.
2517	7	Hyatt, J. H.
2518	2	Davis, C. H.
2519	7	Rathburn, J. H.
2520	7	Cain, Richard
2522	14	Watson, F. W.
2523	4	Colson, F. A.
2524	4	Goff, Edward
2525	3	Nelson, Robert
2526	8	Emig, A. R.
2527	7	Kaminsky, G. W.
2529	10	Cody, David
2530	6	Bolhouse, Geo.

Pennant	Lodge	Name
2531	4	Crerar, Jno.
2532	3	Gustafson, Chas. A.
2533	1	Walle, Martin
2534	11	Warner, Clarence W.
2535	4	Keefe, Daniel J.
2537	3	Horton, Chas. E.
2538	7	Duncan, V. W.
2539	3	Hansen, Hans A.
2940	1	Fontaine, W. C.
2941	1	Nims, R. J.
2942	4	Munroe, A. J.
2943	4	LeRoy, Thos. G.
2944	8	Kiddle, Arthur A.
2945	3	Zwemer, Geo.
2946	6	Jackson, E. J.
2947	12	Davis, F. W.
2948	12	Weborg, I. O.
2949	7	Grose, Otto M.
2950	7	Grose, Edw. W.
2951	7	Yates, George
2952	6	Sullivan, Jere. B.
2953	3	Berg, Isaac J.
2954	4	Cooney, Edw. J.
2955	8	Ingles, Robert
2956	8	Rouvel, Walter P.
2957	4	Talbot, A. J., Jr.
2958	14	Cushing, Jas. E.
2959	14	Wolvin, Elmer B.
2960	14	Webster, Walter M.
2961	4	Duddelson, J. Marshal
2962	8	Rouvel, Philip E.
2963	3	Wilson, Edward
2964	3	Gentz, Otto A.
2965	4	Peterson, Frank J.
2966	2	Cornell, Hart R.
2967	3	Madden, Thos. M.
2968	1	Kelly, Jno. W.
2969	4	Hinslea, Lee C.
2970	1	McPherson, A. J.
2971	1	Healy, George
2972	4	Buckley, H. L.
2973	4	Carlisle, C. C.
2974	4	Bostwick, M. E.
2975	4	Fick, Jno. E.
2976	4	Jones, Ralph E.
2977	6	Garland, Guy W.
2978	4	Dixon, Walter J.
2979	4	Moran, Jos. S.
2980	6	Whitlock, Dana T.
2982	7	Lane, Wm. J.
2983	4	Brown, Milton J.
2984	4	Scheible, Frank A.
2985	4	Wexler, Robert D.
2986	8	Endelman, Jno. G.
2987	7	Needham, Harrison J.
2988	4	Downs, Chas. E.
2989	12	DesJardins, Fred
2990	12	Lenaghan, Geo. H.
2991	12	Saunders, Thos. H.
2992	12	Everson, Harry
2993	12	Reinhold, Henry W.
2994	4	Plaar, Mark F.
2995	4	Quinn, Frank W.
2996	4	Morton, Alfred C.
2997	4	Starr, C. H.
2998	6	Ashby, Harry
2999	6	Hoglund, Rudolph C.
3000	6	Griffith, Thos. R.
3001	7	Cram, Enoch
3002	7	Conlin, J. M.
3003	1	Brown, David D.
3004	12	Johnson, Edward
3005	12	Thibideau, Frank J.
3006	12	Larson, James
3007	4	Meyers, Chas. F.
3008	4	Nunn, Arthur E.
3009	14	Leach, Howard N.
3010	14	Brinker, Clarence J.
3011	8	Conlin, Lewis B.
3012	8	Osier, Henry

LIST OF OFFICERS SUBORDINATE LODGES.

Buffalo Lodge, No. 1—Jos. R. Acton, President; John E. Drury, 1st Vice President; Frank H. Ernest, 2nd Vice President; Frank R. Gebhard, Treasurer; Jos. M. Green, Secretary.

Port Huron Lodge, No. 2—D. M. Crooker, President, Guy Geel, 1st Vice President; Wm. Stevenson, 2nd Vice President; D. M. Sinclair, Treasurer and Secretary.

Chicago Lodge, No. 3—D. J. McGarrity, President; Jas. J. Ferguson, 1st Vice President; C. H. Wallace, 2nd Vice President; D. M. Cochrane, Treasurer; M. F. Morgan, Secretary; H. N. Napier, Chaplain, Geo. Zwemer, Marshal; Chas. Ohlke, Warden; Herman Hillstrand, Sentinel.

Cleveland Lodge, No. 4—Grant Hibbard, President; Roy Johnson, 1st Vice President; John Crerar, 2nd Vice President; L. C. Hinslea, Treasurer; C. L. Allen, Secretary.

Milwaukee Lodge, No. 6—Joseph A. Brownell, President; Chas. J. Kearns, 1st Vice President; Otto Hendricksen, 2nd Vice President; F. C. Maxon, Treasurer; Jno. McSweeny, Secretary.

Detroit Lodge, No. 7—Ed. Gatfield, President; John Hyatt, 1st Vice President; Geo. Kaminski, 2nd Vice President; B. S. Baker, Treasurer; Chas. G. Merckel, Secretary; B. F. Ogden, Chaplain; J. C. McCormick, Marshal; Chas. Ernest, Warden; Jos. Watts, Sentinel.

Marine City Lodge, No. 8—John M. Lohr, President; Jas. Cottrell, 1st Vice President; Sam'l McCann, 2nd Vice President; James Taylor, Treasurer; L. M. Baird, Secretary.

Toledo Lodge No. 9—James McKinley, President; Dennis Dagan, 1st Vice President; R. J. Pocock, 2nd Vice President; E. G. Ashley, Treasurer and Secretary.

Ogdensburg Lodge, No. 10—M. A. Leonard, President; W. T. J. Bryan, 1st Vice President; Henry Casey, 2nd Vice President; Jno. J. Powers, Treasurer and Secretary.

Algonac Lodge No. 11—S. H. Smith, President; Harvey Stewart, 1st Vice President; W. E. Warner, 2nd Vice President; Geo. Atkinson, Treasurer; Jas. P. Stewart, Secretary.

Duluth Lodge, No. 12—Jesse Pinney, President; H. D. Seeley, 1st Vice President; Geo. A. Lyons, 2nd Vice President, Albert Swenson, Treasurer and Secretary.

St. Clair Lodge No. 14—Jos. W. Autterson, President; F. W. Watson; 1st Vice President; Jos. Rinn, 2nd Vice President; Richard O'Connor, Treasurer; Jos. C. Burk, Secretary; Fred West, Chaplain; Jesse Brines, Marshal; Henry Cahours, Warden; Wm. Morrison, Sentinel.

TOTAL AMOUNT OF ASSESSMENTS FOR YEAR, JANUARY 25, 1919 to JANUARY 24, 1920 INCLUSIVE.

Lodge No. 1	Buffalo	$2722.00
Lodge No. 2	Port Huron	1622.00
Lodge No. 3	Chicago	2646.00
Lodge No. 4	Cleveland	5272.00
Lodge No. 6	Milwaukee	1940.00
Lodge No. 7	Detroit	3500.00
Lodge No. 8	Marine City	1032.00
Lodge No. 9	Toledo	590.00
Lodge No. 10	Ogdensburg	674.00
Lodge No. 11	Algonac	610.00
Lodge No. 12	Duluth	1130.00
Lodge No. 14	St. Clair	884.00
Lodge No. 16	Thunder Bay	98.00
Lodge No. 18	Toronto	82.00
		$22802.00

LIST OF MEMBERS IN GOOD STANDING AT CLOSE OF BOOKS, JANUARY 24, 1920.

Lodge No. 1	Buffalo	112
Lodge No. 2	Port Huron	65
Lodge No. 3	Chicago	105
Lodge No. 4	Cleveland	224
Lodge No. 6	Milwaukee	79
Lodge No. 7	Detroit	139
Lodge No. 8	Marine City	39
Lodge No. 9	Toledo	24
Lodge No. 10	Ogdensburg	28
Lodge No. 11	Algonac	26
Lodge No. 12	Duluth	43
Lodge No. 14	St. Clair	38
Lodge No. 16	Thunder Bay	5
Lodge No. 18	Toronto	6
		933

Obituary

Our Departed Brothers

To the Grand Lodge I. S. M. A.:

Whereas, it has pleased Our Heavenly Father in his divine wisdom to take from us our beloved brothers the past year;

Whereas, In their death our organization has lost ever useful and beloved members;

It is Hereby Resolved: That the members of this Association do extend their heartfelt sympathy to the bereaved families of our departed Brothers who were taken from them in their strong manhood.

May He who like a Father pitieth his children, comfort and sustain them in their sorrow and help them to feel and know that though their loved ones are gone from them in person, His love and protection is still with them.

Bro. A. J. McKay

Bro. G. D. Rood	Bro. C. A. Jones
Bro. W. P. McGannon	Bro. H. Woerpel
Bro. J. Doville	Bro. J. Stewart
Bro. C. A. Benham	Bro. F. W. Light
Bro. E. Zwemer	Bro. W. H. Humphrey
Bro. J. Regan	Bro. H. W. McEiven
Bro. C. Mercero	Bro. W. E. Wright
Bro. C. N. Miller	Bro. J. S. Smith
Bro. C. G. Ennis	Bro. J. F. Byers
Bro. G. C. Benham	Bro. A. A. McMaugh

When the dreams of life are fled,
When its wartell lamps are dead,
When in cold oblivious shade,
Beauty, Power and Fame are laid
Where Immortal Spirits reign,
There shall we all meet again.

Be It Further Resolved, That a copy of this resolution be spread on the minutes of this meeting.

J. A. Brownell,
S. V. Anderson,
Charles Rinn,
Committee.

In Memory

Of Brother Ship Masters who have departed this life since the Association was Organized

John A. Archer
D. M. Becker
J. P. McArthur
Thomas Collins
I. H. Andrews
John Nelson
P. J. Sexton
J. P. Hodges
John Cotton
H. J. Hatch
Edward Condon
John Condon
Thomas Riordan
James Carlisle
Benj. Chambers
Henry Ellis
John Keelin
Robert Hayes
Albert Meyers
P. G. Minch
Peter J. Kenney
A. Muir
A. W. Reed
P. Ryan
E. W. Dorsey
E. K. Porter
L. H. Weeks
P. Woods
W. E. Ladner
H. A. Sisson
H. B. Vosburg
George Scott
Thomas Maytham
E. M. Peck
S. Shannon
Jno. R. Gorman
Thos. Harbottle
James Frasier
Louis Guthrie
George W. Stoddard
Albert Meswald
D. M. Jones
James Webber
Thomas Rowley
R. E. Gain
E. J. Purcell
William Carlisle

N. Robinson
Edward Kelley
H. C. Little
Alexander Read
Smith Moore
John C. Flor
Thomas Hackett
Fred G. Boothman
John Wilson
Peter J. Girard
Eugene Winchester
John Cornish
Thomas Beniteau
Patrick Pardee
Zach Sargisson
Alpha Simons
John R. Donahue
J. B. McManus
C. S. Geel
W. H. Cowin
W. S. Mack
Byron Brown
Lorenzo W. Cook
Bernard Wilds
David Critchett
Wm. G. Turner
Robt. Moore
J. S. Lawton
J. W. Farwell
J. W. Martin
Peter Cromley
Thos. Cowan
C. A. Peltier
Thos. H. Stafford
Wm. H. Wallace
Daniel Jones
James Snell
Henry Root
Chas. W. Black
John N. Lundy
John Freer
Alvin Neal
F. J. Cadotte
J. B. Pierce
James Drake
John C. Brown
Delos Waite

John S. Van Rensler
D. H. Bryant
Peter C. Bassett
A. A. Cox
Joseph Nicholson
A. Morrison
John W. Jordan
Wm. Young
Fred N. La Salle
Albert Stewart
F. J. McCabe
James Lawless
John Hagan
John Hurley
John Leonard
Jos. L. Munger
J. W. Moore
Chas. Miner
Morton H. Place
W. H. Larrabee
J. D. Mullen
James Edgecomb
Joseph Shackett
Thomas Walker
Wm. Rolls
E. Saveland
W. H. McNelly
James Donegan
E. T. Hawley
F. D. Welcome
P. Ryan
Wm. Cumming
Wm. Hutcheson
W. R. Willlams
C. T. Morley
Thos. Richardson
William Cavers
Martin Johnston
Wm. Morse
John Buie
M. W. Gotham
Henry Jeffrey
C. H. Lewis
L. H. Waterbury
J. C. Carry
A. C. Reimers
E. W. Haskins

B. C. Gray
D. A. McLaughlin
Henry Berlin
Warren Morris
W. W. Brown
J. R. Sinclair
Louis Ryerse
Wm. Dickson
Richard Neville
Charles Brown
F. W. Stanton
R. H. White
A. P. Clinton
Edmund Fitzgerald
J. Harrington
John Jenkins
John McCarthy
James Parsons
W. C. Godsell
John Coulter
J. C. Thompson
F. A. Chalcraft
Maurice Barrett
Francis Nixon
T. H. Howland
Wm. Shanks
P. A. Anderson
James Doyle
John McNeff
Joseph S. Parsons
Frank Nixon
C. M. Davis
Henry Dawson
Charles McCrea
George King
T. C. Ellis
Daniel Wall
C. B. Chatterson
James W. Millen
J. H. Green
Harry Rodgers
C. F. Moore
Albert M. Gibbs
Joseph Hulligan
George H. Flood
Robert Todd
George M. Dennis
Alex. Begg
L. P. Goodale
F. A. Wetmore
Parlane McFarlane
Thomas Jones

W. A. Irvine
David Curran
Nelson Blair
Thos. Ledden
John Robertson
W. S. Smith
Henry Bennett
S. A. Gilmore
W. Mitchell
Henry Bennett
J. W. Nicholson
S. H. Curry
C. B. Crawford
Alex. Clarke
Wm. Crawford
Dennis Driscoll
M. Fitzgeralds
F. E. Campbell
J. S. Morrison
S. A. Gilmore
Charles Christle
Hall Weimer
George McLeod
J. W. Isbester
John Beckley
Olof Christenson
Charles K. Jackson
Henry Gegoux
Wm. Furtain
Wm. Roach
M. H. Murch
C. C. Allen
Wm. J. Leaver
Chas. McIntosh
Lysander Davidson
Geo. S. Stilphen
H. W. Blue
J. B. Hocrath
Geo. F. Dayton
Ed. Smades
Elton E. Rattray
Henry May
Jas. A. Calbick
Timothy Rahill
Geo. W. Burtis
Thos. Delargie
Carlton Graves
John N. Smith
James Leitch
John Wright
Geo. Pollick

Ed. C. Copeland
Peter McCulloch
Wm. Mitchell
Paul T. Weimar
Chas. Christy
James W. Comstock
Paul Howell
James Leisk
Patrick Dowdell
Jesse G. Hurlburt
W. E. Rice
J. A. Ward
H. C. Page
Donald McLeod
Gust Olsen
Geo. Du Beau
Homer Durand
David Girardin
M. J. Galvin
T. M. Hough
Martin Niland
John S. McNeil
L. R. Vance
J. A. Landfair
Alfred Eade
T. A. Ellery
Paul V. Howell
David Kelly
T. J. Bell
James Travis
Andrew Peterson
A. W Dwelle
Wm. McAlpine
Thomas W. Otter
J. C. Byers
C. E. Little
D. O. Bordeaux
D. F. Cleveland
John McNeil
J. D. Peterson
Joseph E. Yax
J. A. Whiteside
Fred Minor
Edward Mooney
Hugh O. Miller
Peter Wex
Hiram Still
Louis Elliott
Wm. Chamberlin
Samuel Atwood
Wm. W. Shaw

Daniel McFarlane
Peter Kilty
Raymond Cazellis
Jas. P. Godman
Wm. J. Pringle
Jas. Hogan
Jas. A. Brown
Geo. A. Brown
Walter R. Brown
John Crangle
John McAvoy
Samuel N. Murphy
John Wilkinson
Thomas Wilford
A. A. Causley
John McKeeghan
H. A. Hagensen
George E. Merritt
Robert H. Brooks
John Atwell
Robert A. Lyons
John C. Shaw
James Bruce
John Murray
John A. Johnson
John L. Griffin
Robert J. Cowley
William Gerlach
George U. Wilson
William T. Young
Frank Freshette
T. J. Stephens
I. I. Wulkie
Nelson Little
T. Lemay
Peter Young
E. B. Shay
B. Moshier
George McCullagh
Wm. H. Hoffman
D. A. Kiah
C. E. Sayre
A. J. Kotcher
D. C. Carrier
H. Shackett
F. A. Goodell
J. F. Vaughn
D. McFarlane
A. Sinclair
F. B. Higgie

W. H. Decker
P. Gutch
R. E. Byrns
G. Phillips
C. A. Hartman, Jr.
E. Morton
J. L. Owen
F. C. Watson
W. A. Black
R. Rowan
A. Sommers
E. A. Hill
C. R. Ney
Peter Peterson
P. Kelley
C. T. Bronson
J. J. Doyle
T. J. Tyre
A. J. Huntoon
W. G. Harrow
J. W. Wescott
Ed Tormey
A. B. Miller
James Skeldon
W. P. Wheeler
A. J. Grinly
Cornelius Reilly
H. H. Cummings
C. W. Lockwood
G. R. Longly
Robt. McDowell
Luke Willet
James McAllister
Frank Maitry
J. C. Owen
W. T. Purly
James Gibson
J. B. Warner
Patrick O'Neil
Alex. Greer
J. P. Young
John Disset
J. P. Jennings
J. R. Innes
N. G. Kohnert
J. W. Little
John Massey
D. R. Lynn
R. H. Mosier
Daniel Coughlin

F. C. Starke
James T. Weaver
John McCoy
Wm. Fletcher
Arthur G. Sills
John Perew
Wm. Lennon
Geo. Tebo
Wm. H. Campau
Jos. Sanders
Ed. Ballentine
Thos. Beggs
I. B. Mansfield
C. B. Chapman
John Jenks
E. Doville
J. C. Fox
H. Cummings
W. D. Hamilton
J. W. Cook
A. Gallagher
Edward Evans
Fred C. Hart
Edward July
Harry Richardson
Chas. R. Thrasher
Norman McDonald
F. H. Brown
Richard Jollie
Henry Davis
C. A. Bush
D. M. Sherwood
George Graham
John McArthur
Wm. Jamieson
John E. Cooper
Frank S. Forton
James M. Sanders
Chas D. Ross
W. H. Blattner
David Girardin
C. F. VanNatta
John W. Hall
Berlin Sniffin
Thos. Chron
Harry L. Jones
Geo. Coon
Robert N. Bailey
A. R. Robinson

I. G Gillespie
A. C. May
Edward Lohr
J. C. Pringle
Wm. F. Miller
John Buzzard
Henry Bennett
Wm. H. Thorpe

A. W. Holmes
Wm. H. Johnson
Ezra H. Davis
Martin Howard
J. F. Moore
P. C. Roach
Norman B. Walker
Geo. P. McKay
L. J. Friesenhan

Jos. Waltman
Robert J. Patterson
John Evans
Wm. J. McKay
James McGinn
John Steward
Stephen D. Brownell
E. P. Spear

DEATH CLAIMS PAID YEAR 1919.

Bro. E. P. Spear	$ 1000.00
Bro. Geo. P. McKay	1000.00
Bro. N. B. Walker	1000.00
Bro. S. D. Brownell	1000.00
Bro. Jno. F. Pardee	1000.00
Bro. Geo. B. Kendall	1000.00
Bro. Jas. McGinn	1000.00
Bro. A. J. McKay	1000.00
Bro. Chas. A. Jones	1000.00
Bro. Herman Woerpel	1000.00
Bro. John Stewart	1000.00
Bro. F. W. Light	1000.00
Bro. Wm. H. Humphrey	1000.00
Bro. H. W. McEwen	1000.00
Bro. Wm. E. Wright	1000.00
Bro. John S. Smith	1000.00
Bro. John F. Byers	1000.00
Bro. A. A. McMaugh	1000.00
Bro. Geo. D. Rood	1000.00
Bro. Wm. P. McGannon	1000.00
Bro. Joseph Doville	Not Paid
Bro. Chas. A. Benham	1000.00
Bro. Everett Zwemer	1000.00
Bro. John Regan	1000.00
Bro. Chas. Marcero	1000.00
Bro. C. N. Miller	1000.00
Bro. C. G. Ennes	1000.00
Bro. Geo. C. Benham	1000.00
Total death claims paid	$27000.00

LIFE-SAVING STATIONS ON THE LAKES

Lake Ontario

Big Sandy—North side mouth of Big Sandy creek.
Oswego—East side entrance of Oswego harbor.
Charlotte—East side entrance of Charlotte harbor.
Niagara—East side entrance of Niagara river.

Lake Erie

Buffalo—South side entrance of Buffalo harbor.
Erie—North side entrance of Erie harbor.
Ashtabula—West side of Ashtabula harbor.
Fairport—West side entrance of Fairport harbor.
Cleveland—West side entrance of Cleveland harbor.
Marblehead—Point Marblehead, near quarry docks

Lake Huron

Lake View Beach—Five miles north of Ft. Gratiot light.
Harbor Beach—Inside Harbor Beach harbor.
Point aux Barques—Near lighthouse.
Port Austin—About two miles northeast of Port Austin and about two miles southeast of Port Austin reef light.
Tawas—Near lighthouse.
Sturgeon Point—Near lighthouse.
Thunder Bay Island—West side of island.
Middle Island—North end of the island.
Hammond—Hammond's bay.
Bois Blanc—About midway east side of island.

Lake Superior

Vermilion—Ten miles west of Whitefish Point.
Crisps—Eighteen miles west of Whitefish Point.
Two Heart River—Near mouth of Two Heart river.
Deer Park—Near mouth of Sucker river.
Grand Marais, Mich.—West of harbor entrance.
Marquette—Near lighthouse.

Portage—Old Portage Lake ship canal, three-fourth mile from north end, on east bank.

Duluth—On Minnesota point, upper Duluth.

Lake Michigan

Beaver Island—Near lighthouse.
Charlevoix—South side of harbor entrance.
North Manitou Island—Near Pickards wharf.
South Manitou Island—Near lighthouse.
Sleeping Bear Point—Near Glen Haven.
Point Betsie—Near lighthouse.
Frankfort—South side entrance of harbor.
Manistee—North side entrance of harbor.
Grande Pointe au Sable—One mile south of light.
Ludington—North side entrance of harbor.
Pentwater—North side entrance of harbor.
White River—North side entrance of White Lake.
Muskegon—South side entrance of harbor, Port Sherman.
Grand Haven—North side entrance of harbor.
Holland—In the harbor, south side.
South Haven—North side entrance of harbor.
Saint Joseph—In the harbor, north side.
Michigan City—East side entrance of harbor.
South Chicago—North side entrance of Calumet harbor.
Jackson Park—About seven miles S. by E. of Chicago river light
Old Chicago—In the harbor.
Evanston—On the Northwestern University grounds.
Kenosha—In the harbor, on Washington Island.
Racine—In the harbor, adjoining light.
Milwaukee—Near entrance of harbor, south side.
Sheboygan—Entrance to harbor, north side.
Two Rivers—North side entrance of harbor.
Kewaunee—North side entrance of harbor.
Sturgeon Bay Canal—Eastern entrance of canal, north side.
Bailey's Harbor—On easterly side of harbor.
Plum Island—Near northeast point of island, two miles northwest of Pilot Island light.

CANALS FROM LAKES TO ATLANTIC

The Canadian canals, which have made it possible for a vessel drawing 14 ft. of water to reach the Atlantic from the lakes, are as follows, beginning down the St. Lawrence river: Lachine canal, 8½ miles; Soulanges canal, 14 miles; Cornwall canal, 11 miles; Farran's Point canal, 1 mile; Rapid plat canal, 3 2-8 miles; Galops canal, 7 1-3 miles; Welland canal, 26¾ miles; total, 72 2-8 miles. The River St. Lawrence with the system of canals established on its course above Montreal, and the lakes Ontario, Erie, St. Clair, Huron and Superior, with connecting canals, afford a course of water communication extending from the Straits of Belle Isle to Port Arthur at the head of Lake Superior, a distance of 2,260 statute miles. The distance to Duluth is 2,384 miles. From the Straits of Belle Isle, at the mouth of the St. Lawrence to Montreal, the distance is 986 miles. From Quebec to Montreal, the distance is 160 miles. Owing to the shallowness of the waters on a portion of the river between these two places, particularly through Lake St. Peter, vessels drawing more than from 10 to 12 ft. were formerly barred from passage for the greater part of the season of navigation. In 1826 the question of deepening the channel was first definitely mooted, but it was not until 1844 that any dredging operations were begun. In that year the deepening of a new straight channel was commenced, but the scheme was abandoned in 1847. In 1851 the deepening of the present channel was begun. At that time the depth of the channel at low water was 10 ft. 6 in. By the year 1869 this depth had been increased to 20 ft., by 1882 to 25 ft., and by the close of 1888 the depth of 27½ ft. at low water was attained for a distance of 108 miles from Montreal to a point within tidal influence. This work is now being continued by the government of Canada, which in 1888 assumed the indebtedness incurred. The channel has a minimum width of 300 ft., extending to 550 ft., at points of curvature. It is lighted and buoyed.

Montreal has by this work been placed at the head of ocean navigation and here the canal systems of the River St. Lawrence begin, overcoming the various rapids by which the river channel upward is obstructed, and giving access, through the St. Lawrence canals, the Welland canal, the great lakes and the Sault Ste. Marie canal to the head of Lake Superior. The difference in level between

the point on the St. Lawrence near Three Rivers where tidal influence ceases and Lake Superior is about 600 ft. The total lockage (or height directly overcome by locks) from tide water to Lake Superior is 552 ft. The number of locks through which a vessel would pass in its passage from Montreal at the head of ocean navigation, to the head of Lake Superior, is forty-seven.

It is important to note that the enlargement of the canals on the main route between Montreal and Lake Erie comprises locks of the following minimum dimensions: Length 270 ft., width 45 ft., depth of water on sills 14 ft. The length of the vessels to be accommodated is limited to 256 ft. At Farran's point in the canal of that name the lock is 800 ft. long. A similar lock is built at Iroquois on the Galops canal, the object being to pass a full tow at one lockage.

Leading particulars of the Lachine canal are as follows: Length, 8½ statute miles; number of locks, five; dimensions of locks, 270 ft. by 45 ft.; total rise or lockage, 45 ft.; depth of water on sills at two locks, 18 ft., and at three locks, 14 ft.; average width of new canal, 150 ft. The old lift locks, 200 ft. by 45 ft., are still available with 9 ft. of water on mitre sills. The depth of the canal between locks is now adapted to vessels of 14 ft. draught. The canal consists of one channel, with two distinct systems of locks, the old and the enlarged. There are two lock entrances at each end. The canal extends from the city of Montreal to the town of Lachine, overcoming the St. Louis rapids, the first of a series of rapids which bars the ascent of the river St. Lawrence.

Dimensions of the Soulanges canal are: Length of canal, 14 miles; number of locks, lift four, guard one; dimensions of locks, 280 ft. by 45 ft.; total rise on lockage, 84 ft.; depth of water on sills, 15 ft.; breadth of canal at bottom, 100 ft.; breadth of canal at water surface, 164 ft.; number of arc lights, 219 of 2,000 candle power each. The canal extends from Cascade Point to Coteau landing, overcoming the Cascade rapids, Cedar rapids and Coteau rapids.

Dimensions of the Cornwall canal are: Length of canal, 11 miles; number of locks, 6; dimensions of locks, 270 ft. by 45 ft.; total rise or lockage, 48 ft.; depth of water on sills, 14 ft.; breadth of canal at bottom, 100 ft.; breadth of canal at water surface, 164 ft. The old lift locks, 200 ft. by 45 ft., are also available with 9 ft. of water on mitre sills. From the head of the Soulanges to the foot of the Cornwall canal there is a stretch through Lake St. Francis of 32¾ miles, which is being made navigable for vessels drawing 14 ft. The Cornwall canal extends past the Long Sault rapids from the town of Cornwall to Dickenson's landing.

The Farran's point, Rapide plat and Galops canals are collectively known as the Williamsburg canals. Dimensions of the Farran's point canal are: Length of canal, one mile; number of locks, one; new lock, 800 ft. by 45 ft.; old lock, 200 ft. by 45 ft.; total rise or lockage, 3½ ft.; depth of water on sills of new lock at ordinary water level, 14 ft.; depth of water on sills of old lock at ordinary water level, 9 ft.; breadth of canal at bottom, 90 ft.; breadth of canal at water surface, 154 ft. From the head of Cornwall canal to the foot of Farran's point canal the distance on the St. Lawrence river is five miles. The latter canal enables vessels ascending the river to avoid the Farran's point rapids passing the full tow at one lockage. Descending vessels run the rapids with ease and safety.

Particulars of the Rapide plat canal are as follows: Length of canal, 3 2-3 miles; number of locks, two; dimensions of locks, 270 ft. by 45 ft.; total rise or lockage, 11½ ft.; depth of water on sills, 14 ft.; breadth of canal at bottom, 80 ft.; breadth of canal at surface of water, 152 ft. The old lift lock, 200 ft. by 45 ft., is also available with 9 ft. of water on mitre sills. From the head of Farran's point canal to the foot of Rapide plat canal there is a navigable stretch of 10½ miles. This canal was formed to enable vessels ascending the river to pass the rapids at that place. Descending vessels run the rapids safely.

Dimensions of the Galops canal are: Length of canal, 7½ miles; number of locks, three; dimensions of locks (two), 270 ft. by 45 ft., (one) 800 ft. by 45 ft.; total rise or lockage, 15½ ft.; depth of water on sills, 14 ft.; breadth of canal at bottom, 80 ft.; breadth of canal at surface of water, 144 ft. From the head of Rapide plat canal to Iroquois, at the foot of the Galops canal, the St. Lawrence is navigable 4½ miles. This canal enables vessels to overcome the rapids at Pointe aux Iroquois, Point Cardinal and the Galops.

Dimensions of the Murray canal (extending through the Isthmus of Murray, giving connection westward between the head waters of the bay of Quinte and Lake Ontario, and thus enabling vessels to avoid the open lake navigation), are: Length between eastern and western pierheads, 5½ miles; breadth at bottom, 80 ft.; breadth at water surface, 120 ft.; depth below lowest known lake level, 11 ft.; no locks.

The Welland canal is too well known to require extended description. Its main line runs from Port Dalhousie, Lake Ontario, to Port Colborne, Lake Erie. The Welland canal has two entrances from Lake Ontario at Port Dalhousie, one for the old and the other for the new canal. From Port Dalhousie to Allanburgh, 11¾ miles, there

are two distinct lines of canal in operation, the old line and the enlarged or new line. From Allanburgh to Port Colborne, a distance of 15 miles, there is only one channel, the old canal having been enlarged.

It is but just to state that considering its population and resources Canada has done vastly more for its waterways than has the United States. The sum of $75,000,000 is mentioned as a conservative estimate of the money which the Dominion government spent in its canals before a dollar's worth of commerce could adequately utilize them. No commercial enterprise in the world can tell a similar story of faith and confidence in itself. The placing of 14 ft. as the maximum depth for the canals seems strange in the light of today; but it must be remembered that when the system of canals was designed it was supposed that a 14 ft. waterway would be ample for all time upon the great lakes. The depth which at that time vessel men were looking forward to upon the lakes was a uniform one of 12 ft. The great steel carrier was not even a dream then of the most daring of minds.

CHECKING UP COURSES

By Charles A. Benham

The following is a good and reliable method of checking up courses, when from the state of the weather or sun bearings cannot be taken, with the "polaris."

Courses On Lake Superior Using Soo River Ranges

Iroquois Pt. to Whitefish Pt.—Port ⅛ point from course on head of St Mary's river range.

Whitefish Pt. to Copper Harbor—Same as Bayfield Rock Range.

Eagle Harbor to Devil Island—Starboard ¼ point from course on St. Mary's River Lower Range.

Eagle Harbor to La Pointe—Port ⅝ point from course on Pt. Aux Pins Range.

Devil Island to Duluth—Port ½ point from course shown on Pt. Aux Pins Range.

Devil Island to Two Harbors—Port ⅜ point from course shown on St. Mary's River lower range.

Whitefish Point to Passage Island—Port ⅛ point from course shown with Round Island Range over stern.

Whitefish Point to Battle Island—Port ⅛ point from course with Upper St. Mary's River over stern.

Whitefish Point to Pt. Au Sable—Port ½ point from course with Vidal Shoal over stern.

Pt. Au Sable to Marquette—Starboard ⅛ point from course shown with Vidal Shoal Range over stern.

Whitefish Point to Huron Island—Port 1½ points from course shown with Vidal Shoal Range over stern.

Huron Island to Portage Entry—Port ¼ point from course shown with Vidal Shoal Range over stern.

Portage Ship Canal to Devil Island—Port ⅜ point from course shown with St. Mary's River lower range over stern.

Portage Ship Canal to La Point—Port ¼ point from course shown when heading on Pt. Au Pins Range.

Passage Island to Thunder Cap—Port ¼ point from course shown with Vidal Shoal Range over stern.

Courses On Lake Huron Using "Soo" River Ranges

Detour to Middle Island—Port ¼ point from course shown with Frechette Pt. range over stern.

Middle Island to Sand Beach—Starboard ⅛ point from course shown with Middle Hay Lake range over stern.

Sand Beach to Lake Huron Light Ship—Starboard ⅜ point from course shown with Frying Pan and Pipe Island in range over stern.

Nine Mile Pt. to Presque Isle—Starboard ½ point from course shown heading on Bayfield Rock range.

Detour to St. Martins Reef—Same course as steered with Vidal Shoal over stern.

St. Martin's Reef to Round Island—Port ½ point from course shown with Vidal Shoal over stern.

Detour to Ducks—Port ¼ point from course shown heading on St. Mary's River Upper Range.

Ducks to Cove Island—Starboard ⅛ point from course shown when on Bayfield Rock Range.

Poes Reef to Cove Island—Starboard ⅛ point from course shown with Flower Pot and Cove Island in range ahead.

Compass Courses on Lake Michigan, Using Known Ranges

From Pt. Betsies to Chicago—Port ½ point from course steered through No. 2 cut in West Neebish bound down.

From Door to Chicago—Starboard ¼ point from course steered through No. 2 cut in West Neebish bound down.

From Gray's Reef to North Manitou—Port ⅜ point from course shown with Gray's Reef Light Vessel and White Shoal in range over stern; or starboard ⅛ point from course heading on range of Chicago Water Works Crib and Chicago Pierhead.

Chicago to Pt. Betsies'—Port ⅜ point from course shown with S. E., Breakwater and Chicago Water Works Crib in range over stern.

Chicago to Door—Starboard ¼ point from range of S. E. Breakwater and Chicago Water Works Crib.

From Pt. to Milwaukee—Starboard ¼ point from range of Gray's Reef and White Shoal.

Compass Courses On Lake Erie, Using Known Ranges

Buffalo to Erie—Same as range of pierhead light and town clock.

Buffalo to Fairport—Port ½ point from above range.

Buffalo to Long Point and S. E. Shoal—Starboard ¼ point from St. Mary's River lower range.

S. E. Shoal to Middle Gd.—Port ½ point from course on St. Mary's River upper range.

Middle Gd. to Bar Pt. Gas Buoy—Starboard ¾ point from Bayfield Rock range.

Bar Pt. to Toledo Light—Port ½ point course on Grassy Island North Channel range.

S. E. Shoal to Cleveland—Starboard ⅛ point from course on St. Mary's River upper range.

S. E. Shoal to Lorain—Port ¼ point from course shown with Frechette range over stern.

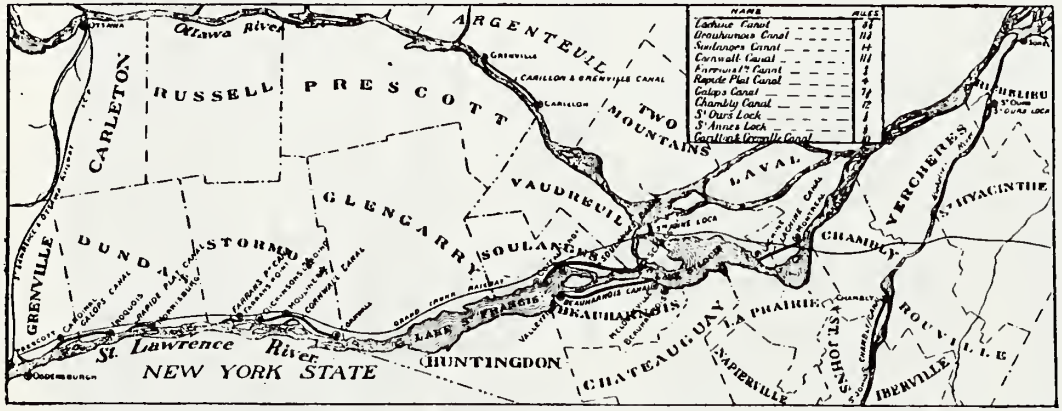
S. E. Shoal to Cleveland—Starboard ⅛ point from course shown heading on St. Mary's River upper range.

S. E. Shoal to Erie—Port ⅛ point from course shown when on Vidal Shoal range.

S. E. Shoal to Ashtabula—Port ¾ point from course shown when on Vidal Shoal range.

S. E. Shoal to Conneaut—Port ⅝ point from course shown when on Vidal Shoal range.

CANADA'S ST. LAWRENCE ROUTE CANALS



MAP SHOWING THE CANALS ON THE MONTREAL OTTAWA AND RICHELIEU RIVERS INCLUDING THE NEW SOULANGES CANAL AND TABLE OF DISTANCES

Between Lake Erie and the sea there are seven Dominion canals, exclusive of the Beauharnois. They are the Welland, Galops, Rapide Plat, Farran's Point, Cornwall, Soulanges and Lachine. Their aggregate length is 70½ miles; the number of locks is fifty-three and the total lockage (or height directly overcome by locks) is 533 feet and 3 inches. The Welland canal, which has for several years past been of 14 feet navigation, and which extends from Port Colborne on Lake Erie to Port Dalhousie on Lake Ontario, is not shown in the illustration. The general scheme of canal enlargement now completed affected all the canals. None of the locks had the required depth and none had the desired dimensions of 270 feet in length and 45 feet in width. With the completion of the Soulanges canal the desired end was accomplished.

AZIMUTHS—A Correction of Compass Courses

(Contributed by Mr. Arthur Dovale, Nautical Expert, Cleveland)

The United States hydrographic office recommends the use of the azimuth tables to ascertain the error of the compass as a handy method and one that will assist in relieving the masters of vessels of great responsibility. The only book absolutely necessary for working azimuths are the "Azimuth Tables" (H. O. No. 106, price 50 cents). It is also necessary to have the equation of time and the declination, which can be found in the weekly "Notices to Mariners." These notices are distributed free of charge by the branch hydrographic offices. Better than these notices, however, for working azimuths is a copy of "The Sun's Apparent Declination and Equation of Time" (H. O. No. 118, price 10 cents), as it is good for a whole year, and also has tables for reducing standard time to local mean time. The following examples will cover all cases required on the Great Lakes:

Example No. 1

We will say that we are off Duluth on August 4, 1901, in latitude 46° 45′ N., longitude 92° 7′ W., variation 8° Ely. (The foregoing can all be found from a chart). Ship heading E. x N. We then take the bearing of the sun (by the same compass as we took the ship's heading) to be N. 78° 30′ E. and note the exact time by watch, set at say 90th meridian (central standard) time and find it to be 7h. 38m., a. m.

Time of observation	7h	38m	00s	(90th meridian)
Correction for longitude—		8	28	(from table III, H. O. No. 118)
Local mean time	7	29	32	
Equation of time	—	5	55	(from table I, H. O. No. 118)
Local apparent time	7	23	37	

From table I, (H. O. No. 118) we find that the sun's delination for August 4 is N. 17°+, which is of the same name as our latitude, therefore, we look for latitude 47° (as 46° 45′ is nearer 47° than 46°) and find it on page 107 (H. O. No. 106); then under the column marked 17° and opposite 7h 30m, we find sun's true bearing.

=N. 94° 25′ E., and opposite 7h 20m, we find the sun's true bearing =N. 92 32 E.

Difference for 10 minutes	=	1° 53′=60′+53′=113′
Difference for 1 minute	=	11.3′
Dfference for 3½ minutes	=	11.3′x3.5′=40′
Sun's true bearing for 7h 20m		=N.92° 32′E.
Correction for 3½ minutes		=+ 40
Sun's true bearing for 7h 23m 37s		=N.93 12 E.
Variation		=— 8 Ely (See note "A")
Sun's magnetic bearing		=N.85 12 E.
Sun's compass bearing		=N.78 30 E.
Deviation for E.xN. course		= 6° 42′ Ely (See note "B")

Note "A"—Since the magnetic north is 8° east of the true north, the sun's magnetic bearing must be 8° less than its true bearing.

Note "B"—Since there are a less number of degrees and minutes from the sun's bearing to the compass north than from the sun's bearing to the magnetic north, the compass north must be to the east of the magnetic north; hence the easterly deviation. Had the compass bearing of the sun been N. 92° 18′ E. then the compass north would have been 7° 06′ W. of the magnetic north and we would have had 7° 06′ W. deviation.

EXAMPLE No. 2

Off Cleveland, O., Dec. 31, 1901.

Latitude, 41° 30′ N., longitude, 81° 40′ W., variation, 2° 11′ Wly. Ship heading, S. S. W.; sun's bearing, N. 129° 36′ W.; time, 3h. 20m. p. m. (90th meridian).

Time of observation..3h 20 00s p. m.
Cor. for long.....+ 33 20 (from table III, H.O. No. 118)
L. M. T.....3 53 20
Eq. of time.....— 2 57 (from table I, H. O. No. 118)
L. A. T.....3h 50m 23s

From table I, (H. O. No. 118) we find that the sun's declination for Dec. 31 is S. 23°+, which is of opposite name to our latitude; therefore, we look on page 179, or 180, of H. O. No. 106, and in the column marked 23°+ at the top

and opposite 3h 50m, we find S. T. B.	= N. 128° 35′ W.		
" " 4h 00m, we find S. T. B.	= N. 126° 49′ W.		
Diff. for 10 minutes	= 1° 46′	= 60′ + 46′ = 106′	
Diff. for 1 minute	=		10.6′
Diff. for 23 sec., or 2-5 minutes	= 10.6x2-5 = 4′		
so that we have, S. T. B. for 3h 50m	= N. 128° 35′ W.		
Cor. for 23s	= — 4′		
S. T. B. for 3h 50m 23s	= N.128° 31′ W.		
Variation (see Note A)	— 2 11 Wly.		
Sun's mag. bearing	= N.126° 20′ W.		
Sun's comp. bearing	= N.129° 36′ W.		
Dev. for course S. S. W.	3° 16′ Ely.		

Note "A"—Since the magnetic north is 2° 11′ west of the true north, the sun's magnetic bearing must be 2° 11′ less than its true bearing.

Note "B"—Since there are a greater number of degrees and minutes from the sun to the compass north, than from the sun to the magnetic north, we have easterly deviation.

THE WIND COMPASS TO A LOW OR CYCLONE.

Compiled by Rev. F. L. Odenbach, S. J. St. Ignatius College, Cleveland, for the Ship Masters of the Great Lakes in token of the **high esteem he has for them.**

1. Cirrus (fine hair cloud, the first to show itself after fine weather) moves out of the storm on a radial line.

2. Cirro-stratus (bands of or sheets of fine fibers) moves from a direction to the **Left** of Cirrus.

3. Cirro-cumulus (small pellets and granulations in bands or patches) move from the left of Cirro-stratus.

4. Alto-cumulus (larger balls or plates of a white snowy appearance) move from a direction to the left of Cirro-cumulus.

5. Cumulus and Cumulus-stratus (the heavy lower clouds) cross the direction of Cirrus at a right angle.

6. The wind comes from a direction (usually more than a right angle) to the left of Cirrus, or the direction of the storm.

(a) **If this system** is more open and the wind nearer to 180 degrees than 90 degrees from the direction of Cirrus, the cyclone is weak.

(b) **If the wind** nears 90 degrees and all cloud paths are closed up, i. e. forming smaller angles with the Cirrus direction, the cyclone is a strong one.

(c) **If this wind** rose, or any part of it observed, shows a backing motion, you are in the northern half of the storm area.

(d) **If this wind** veers—you are in the southern half.

Rule 1

(a) Smoke blowing down and water finely rippled.
(b) With the Barometer rising (A **High** is coming on
(c) And the Temperature falling (and a **Low** has passed.

Rule 2

(a) Smoke rising.
(b) Temperature rising.
(c) Barometer falling.
(d) Wind from Southeast or Northeast with fog.
Shows that a Low is advancing.
With a Southeast it is North of you.
With a Northeast and fog it is South of you.

BAROMETER READINGS

This table of Barometer Readings and the weather indicated is contributed by Capt. C. W. Watson, who says that he has used it for six years and has found that nine times out of ten it can be depended upon.

Wind Barometer Tables for the Great Lakes

Height of Barometer Lake Level	Direction of Wind	Character of Wind and Weather Indicated
29.40 to 29.60 and steady	West	Fair, slight changes in Temperature, gentle to fresh winds.
29.40 to 29.60 rising	West	Fair, cooler, fresh west to northwest winds.
29.40 to 29.60 falling	South	Warmer, increasing southerly winds.
29.60 or above falling rapidly	East to South	Warmer, rain or snow within 36 hours, increasing east to southeast winds.
29.60 or above rising rapidly	West to North	Cool and clear, quickly followed by warmer variable winds.
29.60 or above steady	Variable	No immediate change but wind will go to south inside of 36 hours.
29.40 or below falling slowly	South to East	Rain or snow, increasing easterly winds.
29.40 or below falling rapidly	South to East	Rain or snow, high easterly winds, followed within 48 hours by clearing, cooler west to northwest winds.
29.40 or below rising slowly	South to West	Clearing, colder, fresh to brisk west to northwest winds.
29.20 or below falling rapidly	South to East	Severe storm of wind and rain, wind shifting to northwest within 36 hours.
29.20 or below falling rapidly	East to North	Severe northeaster, with heavy rain or snow, and winds backing to northwest.
29.20 or below rising rapidly	Going to West	Clearing and cooler, probably cold wave in winter.

CONVERSION OF GEOGRAPHICAL OR STATUTE MILES INTO NAUTICAL OR SEA MILES

Statute Mile, 5,280 ft.; Nautical Mile, 6,080 ft.

(Prepared by Capt. Henry Leisk, Milwaukee)

Geographical or statute mile	Nautical or sea mile	Geographical or statute mile	Nautical or sea mile	Geographical or statute mile	Nautical or sea mile	Geographical or statute mile	Nautical or sea mile
1.00	0.868	8.00	6.947	15.00	13.026	22.00	29.105
1.25	1.085	8.25	7.164	15.25	14.243	22.25	19.322
1.50	1.302	8.50	7.381	15 50	13.460	22.50	19.539
1.75	1.519	8.75	7.598	15.75	13.677	22.75	19.756
2 00	1.736	9.00	7.815	16 00	13.894	23.00	19.973
2.25	1.953	9.25	8.032	16.25	14.111	23.25	20.190
2.50	2.171	9.50	8.250	16 50	14.328	23.50	20.407
2.75	2.388	9 75	8.467	16.75	14.546	23.75	20.625
3.00	2.605	10.00	8.684	17.00	14.763	24.00	20.842
3.25	2.822	10.25	8.901	17.25	14.980	24.25	21.059
3.50	3.039	10.50	9.118	17.50	15.197	24.50	21.276
3.75	3.256	10.75	9.335	17.75	15.414	24.75	21.493
4.00	3.473	11.00	9.552	18.00	15.631	25.00	21.710
4.25	3.690	11.25	9.769	18.25	15.848	25.25	21.927
4.50	3.907	11.50	9.986	18.50	16.065	25.50	22.114
4.75	4.125	11.75	10 203	18.75	16.282	25.75	22.361
5.00	4.342	12.00	10.421	19.00	16.500	26.00	22.578
5.25	4.559	12.25	10.638	19.25	16.717	26.25	22.796
5.50	4.776	12.50	10 855	19.50	16.934	26.50	23.013
5.75	4.993	12 75	11.072	19.75	17.151	26.75	23.230
6.00	5.210	13.00	11.289	20.00	17.368	27.00	23.447
6.25	5.427	13.25	11.506	20.25	17.585	27.25	23.664
6.50	5.644	13.50	11.723	20.50	17.802	27.50	23.881
6.75	5.861	13.75	11.940	20.75	18.019	27.75	24.098
7.00	6.078	14.00	12.157	21.00	18.236	28.00	24.315
7.25	6.296	14.25	12.375	21.25	18.453	28.25	24.532
7.50	6.513	14.50	12.592	21.50	18.671	28.50	24.750
7.75	6.730	14.75	12.809	21.75	18.888	29.00	25.184

CONVERSION OF NAUTICAL OR SEA MILES INTO GEOGRAPHICAL OR STATUTE MILES

Statute Mile, 5,280 ft.; Nautical Mile, 6,080 ft.

(Prepared by Capt. Henry Leisk, Milwaukee)

Nautical or sea mile	Geographical or statute mile	Nautical or sea mile	Geographical or statute mile	Nautical or sea mile	Geographical or statute mile	Nautical or sea mile	Geographical or statute mile
1.00	1.151	7.00	8.060	13.00	14.969	19.00	21.878
1.25	1.439	7.25	8.348	13.25	15.257	19.25	22.166
1.50	1.729	7.50	8.636	13.50	15.545	19.50	22.454
1.75	2.015	7.75	8.924	13.75	15.833	19.75	22.742
2.00	2.303	8.00	9.212	14.00	16.121	20.00	23.030
2.25	2.590	8.25	9.500	14.25	16.409	20.25	23.318
2.50	2.878	8.50	9.787	14.50	16.696	20.50	23.606
2.75	3.166	8.75	10.075	14.75	16.984	20.75	23.893
3.00	3.454	9 00	10.393	15.00	17.272	21.00	24.181
3.25	3.742	9.25	10.675	15.25	17.560	21.25	24.469
3.50	4.230	9.50	10.939	15.50	17.848	21.50	24.757
3.75	4.318	9.75	11.227	15.75	18.136	21.75	25.045
4.00	4.606	10.00	11.515	16.00	18.424	22.00	25.333
4.25	4.893	10.25	11.803	16.25	18.712	22.25	25.621
4.50	5.181	10.50	12.090	16.50	18.999	22.50	25.909
4.75	5.469	10.75	12.378	16.75	19.287	22.75	26.196
5.00	5.757	11.00	12.666	17.00	19.575	23.00	26.484
5.25	6.045	11.25	12.954	17.25	19.863	23.25	26.772
5.50	6.333	11.50	13.242	17.50	20.151	23.50	27.060
5.75	6.621	11.75	13.530	17.75	20.439	23.75	27.348
6.00	6.909	12.00	13.818	18.00	20.727	24.00	27.636
6.25	7.196	12.25	14.106	18.25	21.015	24.25	27.924
6.50	7.484	12.50	14.393	18.50	21.303	24.50	28.212
6.75	7.772	12.75	14.681	18.75	21.590	25.00	28.787

UNITED STATES HYDROGRAPHIC OFFICE

The United States Hydrographic office, navy department, Washington, D. C., maintains branch offices on the great lakes as follows: Buffalo, Post Office Building; Sault Ste. Marie, 17 Federal Building; Duluth, 1001 Torrey Building; Chicago, Federal Building.

Masters of vessels are invited to call on arrival in port. Nautical charts and sailing directions on hand for inspection by the shipping public. Information affecting nautical charts regularly received. Nautical inquiries are investigated and answered. "Notices to Mariners," "U. S. Light Lists," and other periodical publications are distributed. Barometers are compared. All services are free.

Captains are earnestly requested to cooperate with the branch hydrographic offices in their work of collecting and distributing information useful to lake marines, by sending to them reports of buoys adrift, lights or gas buoys not lighted, shoals, wrecks, or any other dangers to navigation.

CARRYING MEMBERS AS MATES

The following resolution presented by Marine City Lodge was adopted by the Grand Lodge Ship Masters' Association, at its annual meeting in Buffalo, January, 1910:

Whereas, Several members of this Association serve in the capacity of mate during the sailing season.

Therefore, Be it Resolved, That members who are masters of ships, when in need of a mate, give a member of this Association the preference when it can be done, all things being equal.

SIGNALS—DECK AND ENGINE ROOM

Rules and regulations of the United States steamboat inspection service relating to starting, stopping and backing signals for the

Great Lakes provide that there shall be used between the master or pilot and engineer the following code of signals, to be made by bell or whistle, namely:

1 whistle or 1 bell	Go ahead
1 whistle or 1 bell	Stop
2 whistles or 2 bells	Back
3 whistles or 3 bells	Check
4 whistles or 4 bells	Strong
4 whistles or 4 bells	All right

Two whistles or two bells shall always mean back, irrespective of other signals previously given.

WIND SIGNALS ON LAKE SUPERIOR

Winds expected for the western end of Lake Superior are announced by whistle signals of the United States weather bureau. Signals are blown daily at 10 a. m. by the whistle of elevator "E," Duluth, Minn. The Imperial Mills, Duluth, Minn., also blow these signals at 10 p. m. during the navigation season, whenever the information then at hand is of special importance to vesselmen.

Force of Wind—Light (1 to 5 miles per hour) 1 long whistle; fresh (6 to 14 miles per hour), 2 long whistles; brisk (15 to 24 miles per hour), 3 long whistles; high (25 miles and upwards per hour), 4 long whistles; north, northeast, east, 1 short whistle; southeast, south, 2 short whistles; southwest, west, northwest, 3 short whistles; variable, 4 short whistles.

Duration of whistles: Short, 2 seconds; long, 6 seconds.

Examples: For "brisk northwest winds" there is blown first a prolonged "attention" whistle; then three long and three short whistles. For "light northeast shifting to brisk westerly winds" the "attention" whistle is blown first and then one long, one short, three long, three short.

Buffalo, N. Y.

Michigan and Ohio street bridges over Buffalo creek, South Michigan street bridge over City Ship (Blackwell) canal, Ohio basin slip bridge and Evans slip bridge ..... 3 blasts
Hamburg turnpike and B. C. R. R. bridges, upper end of city ship (Blackwell) canal ..... 3 long 3 short
International bridge, Niagara river ..... 1 long
Ferry street bridge, Black Rock harbor ..... 3 blasts
International bridge, Black Rock harbor ..... 1 long

Tonawanda, N. Y.

Tonawanda island bridge and Tonawanda creek bridge.... 3 blasts

Ashtabula, O.

Ashtabula bridges; county highway and L. S. & M. S. Ry... 1 long

Cleveland, O.

L. S. & M. S. Ry. bridge ..... 1 long 2 short
Old River bed bridges ..... 1 long 1 short 1 long 1 short
Main street bridge ..... 2 long blasts
Superior street viaduct ..... 3 long blasts
Valley Ry. bridge and all others above it in the main river ..... 1 long 2 short 1 long

Bridge Signals of Various Ports.

Lorain, O.

City bridge ..... 1 long 2 short
N. Y. C. & St. L. Ry. bridge ..... 3 long

Toledo, O.

All bridges in main river ..... 3 blasts
Dayton slip bridge ..... long short long short
Swan Creek—
L. S. & M. S. Ry. and Perry street bridge.....long short long
St. Clair street bridge ..... 1 long 2 short

Erie street bridge ..... 3 long
Clover Leaf Ry. bridge ..... 3 long

Duluth, Minn.

When approaching aerial bridge over Duluth Canal ..... 3 short
Interstate bridge ..... 1 long 1 short 1 long
Minnesota draw. Northern Pacific bridge ..... 1 long 2 short
Wisconsin draw. Northern Pacific bridge ..... 2 long 2 short
Grassy Point bridge ..... 2 short 1 long
Lamborn Ave. bridge ..... 3 short
New Duluth transfer bridge ..... 3 long

Chicago, Ill.

Chicago Revised Code prescribes 3 short for Chicago river and branches and Calumet river. By local custom 4 short are sounded going northward only for C. & N. W. Ry. bridge at Kinzie street and for C., M. & St. P. Ry. bridge at North avenue.

Milwaukee, Wis.

In Milwaukee 3 short whistles is the general bridge signal. There is excepted from this the bridge across the Menominee river at the foot of West Water street, and also the railroad bridge about a half block east of the West Water street bridge, as well as the bridge of the Chicago & Northwestern Ry. company across the Kinnickinnic, between Kinnickinnic avenue and Clinton street. For these exceptions the signal is four short blasts. Another exception is the Point street bridge, entrance to Green Bay canal, for which the signal is two short blasts.

Green Bay, Wis.

Fox River—
Main street ..... 2 short 1 long
Walnut street ..... 1 long 2 short
Mason street ..... .1 long 1 short 1 long
Railroad and East River bridges ..... 3 long

AN ORDINANCE

Regulating the Harbor and City Bridges in the City of Toledo

Be it Ordained by the Council of the City of Toledo, State of Ohio:

Section 1. It shall be unlawful for any person or persons to propel, or cause to be propelled, any boat on the Maumee river inside the City Limits of the City of Toledo, at a rate of speed exceeding Six Miles per hour. The provisions of this section shall not be construed as applying to passenger boats, sand-suckers or tugs. The speed of the boats herein mentioned shall not exceed Eight Miles per hour.

Section 2. It shall be unlawful for any person or persons to cause any boat to tow more than one boat at a time through any draw-bridge in the City of Toledo.

Section 3. No bridge draw shall be opened for boats that are not propelled by power, unless they are towed by a power boat.

Section 4. The provisions of Sections 1, 2 and 3 hereof shall not be construed as applying to gasoline power boats and yachts, and the provision of Section 2 hereof shall not be construed as applying to scows.

Section 5. All city bridges shall be closed to navigation from the hours of 6:30 a. m. to 7:30 a. m., and from 5 p. m. to 6 p. m.

Section 6. Any person violating any of the provisions of Section 1 or Section 2 hereof, shall be guilty of a misdemeanor, and, upon conviction thereof, shall be fined not to exceed Three Hundred Dollars.

Section 7. This ordinance shall take effect and be in force from and after the earliest period allowed by law.

Passed May 20th, 1912.

On and after July 15th, 1912, this ordinance will be enforced by order of A. W. Boardman, Director of Public Service.

A. W. Boardman,
Director of Public Service.

John Dunseith,
Supt. of Bridges.

SHOWING EVERY POINT AND DEGREE.

THE COMPASS

The Chinese claim to have invented the Compass in the year 2634 B. C., but the earliest date that they appear to have used it at sea was about 300 A. D.

The Italians have always contended that Flavio Gioza of Amalfa, Italy, invented the Comsass in the year 1342 A. D., but it has been proven that the Compass was well known as a nautical instrument long before that date.

° ′	POINTS	° ′	POINTS	° ′	POINTS	° ′	POINTS
0 00	N	45 00	NE	90 00	E	135 00	SE
0 42		45 42		90 42		135 42	
1 24	N ⅛ E	46 24	NE ⅛ E	91 24	E ⅛ S	136 24	SE ⅛ S
2 07		47 07		92 07		137 07	
2 49	N ¼ E	47 49	NE ¼ E	92 49	E ¼ S	137 49	SE ¼ S
3 31		48 31		93 31		138 31	
4 13	N ⅜ E	49 13	NE ⅜ E	94 13	E ⅜ S	139 13	SE ⅜ S
4 55		49 55		94 55		139 55	
5 38	N ½ E	50 38	NE ½ E	95 38	E ½ S	140 38	SE ½ S
6 20		51 20		96 20		141 20	
7 02	N ⅝ E	52 02	NE ⅝ E	97 02	E ⅝ S	142 02	SE ⅝ S
7 44		52 44		97 44		142 44	
8 26	N ¾ E	53 26	NE ¾ E	98 26	E ¾ S	143 26	SE ¾ S
9 08		54 08		99 08		144 08	
9 51	N ⅞ E	54 51	NE ⅞ E	99 51	E ⅞ S	144 51	SE ⅞ S
10 33		55 33		100 33		145 33	
11 15	N x E	56 15	NE x E	101 15	E x S	146 15	SE x S
11 57		56 57		101 57		146 57	
12 39	N x E ⅛ E	57 39	NE x E ⅛ E	102 39	ESE ⅞ E	147 39	SSE ⅞ E
13 22		58 22		103 22		148 22	
14 04	N x E ¼ E	59 04	NE x E ¼ E	104 04	ESE ¾ E	149 04	SSE ¾ E
14 46		59 46		104 46		149 46	
15 28	N x E ⅜ E	60 28	NE x E ⅜ E	105 28	ESE ⅝ E	150 28	SSE ⅝ E
16 10		61 10		106 10		151 10	
16 53	N x E ½ E	61 53	NE x E ½ E	106 53	ESE ½ E	151 53	SSE ½ E
17 35		62 35		107 35		152 35	
18 17	N x E ⅝ E	63 17	NE x E ⅝ E	108 17	ESE ⅜ E	153 17	SSE ⅜ E
18 59		63 59		108 59		153 59	
19 41	N x E ¾ E	64 41	NE x E ¾ E	109 41	ESE ¼ E	154 41	SSE ¼ E
20 23		65 23		110 23		155 23	
21 06	N x E ⅞ E	66 06	NE x E ⅞ E	111 06	ESE ⅛ E	156 06	SSE ⅛ E
21 48		66 48		111 48		156 48	
22 30	NNE	67 30	ENE	112 30	ESE	157 30	SSE
23 12		68 12		113 12		158 12	
23 54	NNE ⅛ E	68 54	ENE ⅛ E	113 54	SE x E ⅞ E	158 54	S x E ⅞ E
24 37		69 37		114 37		159 37	
25 19	NNE ¼ E	70 19	ENE ¼ E	115 19	SE x E ¾ E	160 19	S x E ¾ E
26 01		71 01		116 01		161 01	
26 43	NNE ⅜ E	71 43	ENE ⅜ E	116 43	SE x E ⅝ E	161 43	S x E ⅝ E
27 25		72 25		117 25		162 25	
28 08	NNE ½ E	73 08	ENE ½ E	118 08	SE x E ½ E	163 08	S x E ½ E
28 50		73 50		118 50		163 50	
29 32	NNE ⅝ E	74 32	ENE ⅝ E	119 32	SE x E ⅜ E	164 32	S x E ⅜ E
30 14		75 14		120 14		165 14	
30 56	NNE ¾ E	75 56	ENE ¾ E	120 56	SE x E ¼ E	165 56	S x E ¼ E
31 38		76 38		121 38		166 38	
32 21	NNE ⅞ E	77 21	ENE ⅞ E	122 21	SE x E ⅛ E	167 21	S x E ⅛ E
33 03		78 03		123 03		168 03	
33 45	NE x N	78 45	E x N	123 45	SE x E	168 45	S x E
34 27		79 27		124 27		169 27	
35 09	NE ⅞ N	80 09	E ⅞ N	125 09	SE ⅞ E	170 09	S ⅞ E
35 52		80 52		125 52		170 52	
36 34	NE ¾ N	81 34	E ¾ N	126 34	SE ¾ E	171 34	S ¾ E
37 16		82 16		127 16		172 16	
37 58	NE ⅝ N	82 58	E ⅝ N	127 58	SE ⅝ E	172 58	S ⅝ E
38 40		83 40		128 40		173 40	
39 23	NE ½ N	84 23	E ½ N	129 23	SE ½ E	174 23	S ½ E
40 05		85 05		130 05		175 05	
40 47	NE ⅜ N	85 47	E ⅜ N	130 47	SE ⅜ E	175 47	S ⅜ E
41 29		86 29		131 29		176 29	
42 11	NE ¼ N	87 11	E ¼ N	132 11	SE ¼ E	177 11	S ¼ E
42 53		87 53		132 53		177 53	
43 36	NE ⅛ N	88 36	E ⅛ N	133 36	SE ⅛ E	178 36	S ⅛ E
44 18		89 18		134 18		179 18	

° ′	POINTS	° ′	POINTS	° ′	POINTS	° ′	POINTS
180 00	S	225 00	SW	270 00	W	315 00	NW
180 42		225 42		270 42		315 42	
181 24	S ⅛ W	226 24	SW ⅛ W	271 24	W ⅛ N	316 24	NW ⅛ N
182 07		227 07		272 07		317 07	
182 49	S ¼ W	227 49	SW ¼ W	272 49	W ¼ N	317 49	NW ¼ N
183 31		228 31		273 31		318 31	
184 13	S ⅜ W	229 13	SW ⅜ W	274 13	W ⅜ N	319 13	NW ⅜ N
184 55		229 55		274 55		319 55	
185 38	S ½ W	230 38	SW ½ W	275 38	W ½ N	320 38	NW ½ N
186 20		231 20		276 20		321 20	
187 02	S ⅝ W	232 02	SW ⅝ W	277 02	W ⅝ N	322 02	NW ⅝ N
187 44		232 44		277 44		322 44	
188 26	S ¾ W	233 26	SW ¾ W	278 26	W ¾ N	323 26	NW ¾ N
189 08		234 08		279 08		324 08	
189 51	S ⅞ W	234 51	SW ⅞ W	279 51	W ⅞ N	324 51	NW ⅞ N
190 33		235 33		280 33		325 33	
191 15	S x W	236 15	SW x W	281 15	W x N	326 15	NW x N
191 57		236 57		281 57		326 57	
192 39	S x W ⅛ W	237 39	SWxW ⅛ W	282 39	WNW ⅞ W	327 39	NNW ⅞ W
193 22		238 22		283 22		328 22	
194 04	S x W ¼ W	239 04	SWxW ¼ W	284 04	WNW ¾ W	329 04	NNW ¾ W
194 46		239 46		284 46		329 46	
195 28	S x W ⅜ W	240 28	SWxW ⅜ W	285 28	WNW ⅝ W	330 28	NNW ⅝ W
196 10		241 10		286 10		331 10	
196 53	S x W ½ W	241 53	SWxW ½ W	286 53	WNW ½ W	331 53	NNW ½ W
197 35		242 35		287 35		332 35	
198 17	S x W ⅝ W	243 17	SWxW ⅝ W	288 17	WNW ⅜ W	333 17	NNW ⅜ W
198 59		243 59		288 59		333 59	
199 41	S x W ¾ W	244 41	SWxW ¾ W	289 41	WNW ¼ W	334 41	NNW ¼ W
200 23		245 23		290 23		335 23	
201 06	S x W ⅞ W	246 06	SWxW ⅞ W	291 06	WNW ⅛ W	336 06	NNW ⅛ W
201 48		246 48		291 48		336 48	
202 30	SSW	247 30	WSW	292 30	WNW	337 30	NNW
203 12		248 12		293 12		338 12	
203 54	SSW ⅛ W	248 54	WSW ⅛ W	293 54	NWxW⅞W	338 54	N x W ⅞ W
204 37		249 37		294 37		339 37	
205 19	SSW ¼ W	250 19	WSW ¼ W	295 19	NWxW¾W	340 19	N x W ¾ W
206 01		251 01		296 01		341 01	
206 43	SSW ⅜ W	251 43	WSW ⅜ W	296 43	NWxW⅝W	341 43	N x W ⅝ W
207 25		252 25		297 25		342 25	
208 08	SSW ½ W	253 08	WSW ½ W	298 08	NWxW½W	343 08	N x W ½ W
208 50		253 50		298 50		343 50	
209 32	SSW ⅝ W	254 32	WSW ⅝ W	299 32	NWxW⅜W	344 32	N x W ⅜ W
210 14		255 14		300 14		345 14	
210 56	SSW ¾ W	255 56	WSW ¾ W	300 56	NWxW¼W	345 56	N x W ¼ W
211 38		256 38		301 38		346 38	
212 21	SSW ⅞ W	257 21	WSW ⅞ W	302 21	NWxW⅛W	347 21	N x W ⅛ W
213 03		258 03		303 03		348 03	
213 45	SW x S	258 45	W x S	303 45	NW x W	348 45	N x W
214 27		259 27		304 27		349 27	
215 09	SW ⅞ S	260 09	W ⅞ S	305 09	NW ⅞ W	350 09	N ⅞ W
215 52		260 52		305 52		350 52	
216 34	SW ¾ S	261 34	W ¾ S	306 34	NW ¾ W	351 34	N ¾ W
217 16		262 16		307 16		352 16	
217 58	SW ⅝ S	262 58	W ⅝ S	307 58	NW ⅝ W	352 58	N ⅝ W
218 40		263 40		308 40		353 40	
219 23	SW ½ S	264 23	W ½ S	309 23	NW ½ W	354 23	N ½ W
220 05		265 05		310 05		355 05	
220 47	SW ⅜ S	265 47	W ⅜ S	310 47	NW ⅜ W	355 47	N ⅜ W
221 29		266 29		311 29		356 29	
222 11	SW ¼ S	267 11	W ¼ S	312 11	NW ¼ W	357 11	N ¼ W
222 53		267 53		312 53		357 53	
223 36	SW ⅛ S	268 36	W ⅛ S	313 36	NW ⅛ W	358 36	N ⅛ W
224 18		269 18		314 18		359 18	

TABLE FOR CONVERTING COMPASS COURSES INTO DEGREES, MINUTES AND SECONDS

(A Favor from Frank Henrich, Nautical Expert, Duluth)

Points	Number	Degrees °	′	″	Number	Points
North						South
	0	0	0	0	0	
	⅛	1	24	22	⅛	
	¼	2	48	45	¼	
	⅜	4	13	07	⅜	
	½	5	37	30	½	
	⅝	7	01	52	⅝	
	¾	8	26	15	¾	
	⅞	9	50	37	⅞	
N. by E.....N. by W.	1	11	15	00	1	S. by W....S. by E.
	⅛	12	39	22	⅛	
	¼	14	03	45	¼	
	⅜	15	28	07	⅜	
	½	16	52	30	½	
	⅝	18	16	52	⅝	
	¾	19	41	15	¾	
	⅞	21	05	37	⅞	
N. NE.....N. NW.	2	22	30	00	2	S. SW. ..... S. SE.
	⅛	23	54	22	⅛	
	¼	25	18	45	¼	
	⅜	26	43	07	⅜	
	½	28	07	30	½	
	⅝	29	31	52	⅝	
	¾	30	56	15	¾	
	⅞	32	20	37	⅞	
NE. by N..NW. by N.	3	33	45	00	3	SW. by S..SE. by S.
	⅛	35	09	22	⅛	
	¼	36	33	45	¼	
	⅜	37	58	07	⅜	
	½	39	22	30	½	

	⅝	40	46	52	⅝	
	¾	42	11	15	¾	
	⅞	43	35	37	⅞	
NE. ..... NW.	4	45	00	00	4	SW. ..... SE.
	⅛	46	24	22	⅛	
	¼	47	48	45	¼	
	⅜	49	13	07	⅜	
	½	50	37	30	½	
	⅝	52	01	52	⅝	
	¾	53	26	15	¾	
	⅞	54	50	37	⅞	
NE. by E. NW. by W.	5	56	15	00	5	SW. by W. SE. by E.
	⅛	57	39	22	⅛	
	¼	59	03	45	¼	
	⅜	60	28	07	⅜	
	½	61	52	30	½	
	⅝	63	16	52	⅝	
	¾	64	41	15	¾	
	⅞	66	05	37	⅞	
E. NE. ..... W. NW.	6	67	30	00	6	W. SW. .... E. SE.
	⅛	68	54	22	⅛	
	¼	70	18	45	¼	
	⅜	71	43	07	⅜	
	½	73	07	30	½	
	⅝	74	31	52	⅝	
	¾	75	56	15	¾	
	⅞	77	20	37	⅞	
E. by N.....W. by N.	7	78	45	00	7	W. by S...E. by S.
	⅛	80	09	22	⅛	
	¼	81	33	45	¼	
	⅜	82	58	07	⅜	
	½	84	22	30	½	
	⅝	85	46	52	⅝	
	¾	87	11	15	¾	
	⅞	88	35	37	⅞	
East ..... West	8	90	00	00	8	West ..... East

COMPARATIVE FREIGHT RATES—GRAIN PER BUSHEL, IRON ORE PER GROSS TON

Rate in cents per bushel	Equivalent in Iron Ore Per Gross Ton			
	Corn, flax and rye 56 pounds per bushel, 40 bushels per gross ton	Wheat 60 pounds per bushel, 37 1-3 bushels per gross ton	Barley 48 pounds per bushel, 46 2-3 bushels per gross ton	Oats 32 pounds per bushel, 70 bushels per gross ton
¾	$ 30	$ 28	$0 35	$0 52½
⅞	35	32⅔	40⅚	61¼
1	40	37⅓	46⅔	70
1⅛	45	42	52½	78¾
1¼	50	46⅔	58⅓	87½
1⅜	55	51⅓	64⅙	96¼
1½	60	56	70	1 05
1⅝	65	60⅔	75⅚	1 13¾
1¾	70	65⅓	81⅔	1 22½
1⅞	75	70	87½	1 31¼
2	80	74⅔	93⅓	1 40
2⅛	85	79⅓	99⅙	1 48¾
2¼	90	84	1 05	1 57½
2⅜	95	88⅔	1 10⅚	1 66¼

2½	1 00	93⅓	1 16⅔	1 75
2⅝	1 05	98	1 22½	1 83¾
2¾	1 10	1 02⅔	1 28⅓	1 92½
2⅞	1 15	1 07⅓	1 34⅙	2 01¼
3	1 20	1 12	1 40	2 10
3¼	1 30	1 21⅓	1 51⅔	2 27½
3½	1 40	1 30⅔	1 63⅓	2 45
3¾	1 50	1 40	1 75	2 62½
4	1 60	1 49⅓	1 86⅔	2 80
4¼	1 70	1 58⅔	1 98⅓	2 97½
4½	1 80	1 68	2 10	3 15
4¾	1 90	1 77⅓	2 21⅔	3 32½
5	2 00	1 86⅔	2 33⅓	3 50
5¼	2 10	1 96	2 45	3 67½
5½	2 20	2 05⅓	2 56⅔	3 85
5¾	2 30	2 14⅔	2 68⅓	4 02½
6	2 40	2 24	2 80	4 20
6¼	2 50	2 33⅓	2 91⅔	4 37½
6½	2 60	2 42⅔	3 03⅓	4 55
6¾	2 70	2 52	3 15	4 72½
7	2 80	2 61⅓0	3 26⅔	4 90
For each addit. ⅛c add	5c	4⅔c	5 ⅚c	8¾

APPROXIMATE WEIGHT AND STRENGTH OF MANILA ROPE.

(Compiled by The Upson-Walton Co.)

Circumference in inches.	Diameter in inches.	Weight of 1,000 feet	Weight of 500 feet.	Weight of 1,200 feet.	Weight per fathom.	No. of feet in one pound.	Strength of New Manilla Rope.
Cir.	Dia.	Lbs.	Lbs.	Lbs.	Lbs.	Ft. per Lbs.	Ft. per Lbs.
1-2 in. 6 Th'd fine ...	3-16	12	6	16	1-10	58	450
3-4 in. 6 Th'd	1-4	23	12	28	1-7	43	750
1 in. 9 Th'd	5-16	33	16	40	1-5	30	950
1 1-8 in. 12 Th'd	3-8	42	21	50	1-4	24	1,200
1 1-4 in. Th'd	7-16	52	26	62	1-3	19	1,700
1 1-2 in.	1-2	74	37	89	9-20	13 1-2	2,300
1 3-4 in.	9-16	101	50	121	3-5	10	3,000
2 in.	5-8	132	66	158	4-5	7 1-2	3,900
2 1-4 in.	3-4	167	83	200	1	6	4,700
2 1-2 in.	13-16	207	103	250	1 1-4	5	5,700
2 3-4 in.	7-8	250	125	300	1 1-2	4	6,750
3 in.	1	297	150	356	1 4-5	3 1-3	7,900
3 1-4 in.	1 1-16	349	175	420	2 1-10	2 7-8	9,200
3 1-2 in.	1 1-8	405	202	486	2 9-20	2 1-2	10,600
3 3-4 in.	1 1-4	465	232	558	2 4-5	2 1-6	12,000
4 in.	1 5-16	529	265	635	3 1-6	1 9-10	13,500
4 1-4 in.	1 3-8	597	298	716	3 3-5	1 2-3	15,250
4 1-2 in.	1 7-16	669	335	802	4	1 1-2	16,900
4 3-4 in.	1 1-2	746	373	895	4 1-2	1 1-3	18,750
5 in.	1 5-8	826	413	992	5	1 1-5	22,700
5 1-2 in.	1 3-4	1,000	500	1,200	6	1	27,000
						In.	
6 in.	1 7-8	1,190	595	1,428	7 1-7	10	29,300
6 1-4 in.	2	1,291	645	1,549	7 3-4	9 3-10	31,600
6 1-2 in.	2 1-8	1,397	698	1,677	8 3-8	8 3-5	36,750
7 in.	2 1-4	1,620	810	1,944	9 3-4	7 2-5	42,200
7 1-2 in.	2 3-8	1,860	930	2,232	11 1-6	6 1-2	45,600
8 in.	2 9-16	2,116	1,058	2,539	12 7-10	5 2-3	48,000
8 1-2 in.	2 3-4	2,388	1,194	2,866	14 1-3	5	54,200
9 in.	2 7-8	2,678	1,339	3,214	16 1-16	4 1-2	60,700
9 1-2 in.	3	2,983	1,492	3,580	17 9-10	4	67,700
10 in.	3 3-16	3,306	1,653	3,967	19 5-6	3 5-8	75,000

GALVANIZED STEEL WIRE HAWSERS

For Mooring, Towing and Wrecking

(Compiled by The Upson-Walton Company)

6 x **24**			6 x 24		
Diameter in inches	Weight per 100 Feet	Tested to Tons	Diameter in inches	Weight per 100 Feet	Tested to Tons
¾	75	15	$1\frac{7}{16}$	290	55
$\frac{13}{16}$	90	19	1½	310	63
⅞	105	23	1⅝	360	75
1	138	27	$1\frac{11}{16}$	385	77
$1\frac{1}{16}$	154	30	1¾	425	82
1⅛	175	35	$1\frac{13}{16}$	450	88
1 3-6	193	40	1⅞	475	93
1¼	215	45	$1\frac{15}{16}$	510	98
1⅜	260	50	2	560	115

STUD LINK ANCHOR CHAIN

(Compiled by The Upson-Walton Company.)

Size chain, inches.	Length of six links, inches.	Outside length in inches.	Outside width in inches.	Space between ends of links.	Weight per fathom, pounds.	Proof test, pounds.	Breaking strain, pounds.
¾	18¾	4⅜	2¾	1⅜	34	20,250	32,000
13/16	20⅜	4¾	3	1½	40	23,750	36,000
⅞	21¼	5	3¼	1½	44	28,000	42,000
15/16	22⅞	5⅜	3½	1⅝	51	31,600	48,000
1	25¼	5⅞	3¾	1⅞	59	36,000	54,000
1 1/16	26⅞	6¼	3⅞	2	66	40,600	62,000
1⅛	27¾	6½	4⅛	2	75	45,500	70,000
1 3/16	28⅝	6¾	4¼	2	82	50,750	76,000
1¼	30¼	7⅛	4½	2⅛	91	56,250	86,000
1 5/16	31⅛	7⅜	4⅝	2⅛	103	62,000	94,000
1⅜	32¾	7¾	4⅞	2¼	113	68,000	102,000
1 7/16	34⅜	8⅛	5⅛	2⅜	120	74,250	112,000
1½	36	8½	5⅜	2½	132	81,000	118,000
1 9/16	37⅝	8⅞	5⅝	2⅝	143	87,800	124,000
1⅝	39¼	9¼	5⅞	2¾	156	95,000	134,000
1 11/16	40⅞	9⅝	6	2⅞	162	102,500	144,000
1¾	42½	10	6¼	3	175	110,250	156,000
1 13/16	43⅞	10¼	6½	3	189	118,250	166,000
1⅞	44¼	10½	6¾	3	205	126,500	178,000
1 15/16	45⅛	10¾	7	3	222	135,000	190,000
2	46¾	11⅛	7¼	3⅛	240	144,000	202,000
2 1/16	48⅜	11½	7½	3¼	250	153,000	216,000
2⅛	50¾	12	7¾	3½	265	162,500	228,000
2 3/16	53⅛	12½	8	3¾	280	172,250	242,000
2¼	55½	13	8¼	4	300	182,250	256,000
2 5/16	56⅜	13¼	8½	4	313	192,625	271,000
2⅜	57¼	13½	8¾	4	325	203,000	286,000
2 7/16	58⅛	13¾	8⅞	4	343	214,000	301,000
2½	59	14	9	4	360	225,000	316,000

WHEEL CHAINS

Table of Dimensions (Approximate)
Pitch, Proof, Breaking and Safe Working Load.
Compiled by The Upson-Walton Company.

Size-Inches ...	1-4	5-16	3-8	7-16	1-2	9-16	5-8	11-16	3-4	13-16
Pitch-Distance center of one to center of next link	7-8	1	1 1-8	1 1-4	1 9-32	1 3-8	1 11-16	1 13-16	1 15-16	2 1-16
Outside Width	1	1 3-16	1 3-8	1 9-16	1 11-16	1 7-8	2 1-16	2 1-4	2 1-2	2 11-16
Outside Length	1 1-2	1 11-16	2 1-16	2 1-4	2 3-8	2 5-8	3	3 1-4	3 1-2	3 3-4
Proof Test	1600	3400	4725	6660	8850	11070	13350	16050	18475	21500
Average Breaking Strain	4000	6000	9000	12000	16000	20000	25000	30000	36000	42000
Safe working Load	1330	2000	3000	4000	5330	6660	8330	10000	12000	14000
Average Weight per foot	2-3	1 1-10	1 2-3	2 1-10	2 2-3	3 1-3	4 1-4	5	6	7

Proper Way To Measure Tarpaulins

Measure from Deck to Deck Athwartships
Deck to deck for' and Aft' amidship

WHEEL CHAINS

Table of Dimensions (Approximate)
Pitch, Proof, Breaking and Safe Working Load.
Compiled by The Upson-Walton Company.

Size-Inches ...	7-8	15-16	1	1 1-16	1 1-8	1 3-16	1 1-4	1 5-16	1 3-8	1 7-16
Pitch Distance of one to center of next link...	2 3-16	2 3-8	2 1-2	2 5-8	2 3-4	3 1-16	3 1-8	3 3-8	3 9-16	3 11-16
Outside Width	2 7-8	3 1-16	3 1-4	3 1-2	3 3-4	3 7-8	4 1-8	4 3-8	4 9-16	4 3-4
Outside Length	4	4 3-8	4 5-8	4 7-8	5 1-8	5 9-16	5 3-4	6 1-8	6 7-16	6 11-16
Proof Test	24170	29000	32600	35950	39170	43620	48000	52900	57460	63950
Average Breaking Strain	49000	55000	62500	70000	80000	88000	96000	105000	116000	126000
Safe Working Load	16330	18300	20830	23330	26660	29330	32000	35000	38630	42000
Average Weight Per foot	8	9	10 1-2	12	13 1-2	15	16 1-2	18	20	22

WHEEL CHAINS

Table of Dimensions (Approximate)
Pitch, Proof, Breaking and Safe Working Load.
Compiled by The Upson-Walton Company.

Size-Inches ...	1 1-2	1 9-16	1 5-8	1 3-4	1 7-8	2	2 1-8	2 1-4	2 3-8	2 1-2
Pitch-Distance center of one to center of next link	3 7-8	4	4 1-8	4 3-8	4 7-8	5 1-8	6 1-4	6 3-4	6 7-8	7
Outside Width	5	5 3-16	5 3-8	5 3-4	6 1-8	6 1-2	7 1-8	7 5-8	8	8 3-8
Outside Length	7	7 1-4	7 1-2	8	8 3-4	9 1-4	10 3-4	11 1-2	11 7-8	12 1-4
Proof Test	69280	76600	81960	96075	110000	120000	129000	143000	159500	180000
Average Breaking Strain	140000	150000	160000	185000	200000	225000	258000	286000	319000	360000
Safe Working Load	46660	50000	53330	61630	66660	75000	77400	85800	95700	108000
Average Weight Per Foot ...	24	26	28	32	37	42	47	53	59	65

DRY DOCKS OF THE GREAT LAKES—DIMENSIONS, DRAUGHT OF WATER, ETC.

(From the 1913 Edition of the Blue Book of American Shipping, Copyrighted.)

PLACE	NAME OF DOCK	LENGTH On blocks	LENGTH over all	WIDTH Gate	WIDTH Top	Over Sill Depth
Ashtabula, O.	Great Lakes Engineering Works, graving dock	636	664	78	102	16
Bay City, Mich.	James Davidson	415	435	60	100	14½
Bay City, Mich.	James Davidson	290	315	42½	70	13
Buffalo, N. Y.	Buffalo Dry Dock Co., Dock No. 1	454	478	58	81	16
Buffalo, N. Y.	Buffalo Dry Dock Co., Dock No. 2	615	621	72	96	16
Buffalo, N. Y.	Buffalo Dry Dock Co., Dock No. 3	372	379	45	65½	12½
Buffalo, N. Y.	Empire Ship Bldg. Co.					
Buffalo, N. Y.	Empire Ship Bldg. Co.					
Chicago, Ill.	Ship Owners Dry Dock Co.					
Chicago, Ill.	Ship Owners Dry Dock Co.					
Chicago, Ill.	Ship Owners Dry Dock Co.					
Cleveland, O.	American Shipbuilding Co., Dock No. 1	536	547	58	88	13¾
Cleveland, O.	American Shipbuilding Co., Dock No. 2	442	455	48	55	16
Cleveland, O.	American Shipbuilding Co., Dock No. 3	340	360	48	55	17½
Collingwood, Ont.	Collingwood Shipbuilding Co., Ltd.	514	520	55	60	16½
Detroit, Mich.	Detroit Shipbuilding Co., Dock No. 1	232	232	48	48	8
Detroit, Mich.	Detroit Shipbuilding Co., Dock No. 2	341	368	77	91	16
Detroit, Mich.	Walter H. Oades Marine Ry.	186	...	..	..	11 feet
Duluth, Minn.	N. Grignon, floating dock	60	...	60	60	13
Ecorse, Mich.	Great Lakes Eng. Works					
Grand Haven, Mich.	Mechanics Dry Dock, sectional dock	...	...	..	..	9
Houghton, Mich.	Joseph Croze	75	100	26	26	10
Kingston, Ont.	Davis Dry Dock Co.	180	180	31	40	9
Kingston, Ont.	Kingston Dry Dock Co.	280	300	55	79	14.6 low 16 high
Kingston, Ont.	Government Dock					
Levis, Quebec	Geo. T. Davie & Sons					
Levis, Quebec	Geo. T. Davie & Sons					
Loraln, O.	American Shipbuilding Co.	724	750	80	125	15
Manistee, Mich.	Manistee Iron Works Co.					
Manitowoc, Wis.	Manitowoc Shipbuilding & Dry Dock Co., graving dock	340	350	45	68	13
Manitowoc, Wis.	Manitowoc Shipbuilding & Dry Dock Co.	360	360		70	15

Milwaukee, Wis.	Milwaukee Dry Dock Co., South Dock	444	455	60½	85	13½
Milwaukee, Wis.	Milwaukee Dry Dock Co., West Dock	312	320	45	75	12
Milwaukee, Wis.	Milwaukee Dry Dock Co., also has one floating dry dock 73 ft. long					
Milwaukee, Wis.	Milwaukee Dry Dock Co.					
Montreal, Que.	A. Cantlin, Canada Marine Works	200	200	46	90	11
Ogdensburg, N. Y.	St. Lawrence Marine Ry. Co.	300	300	24	52	16
	J. H. & T. C. Goble, Ontario Dry Dock	150	165	36	50	11
Oswego, N. Y.	Owen Sound Dry Dock & Ship Building Co., Ltd.	275	300	48½	63½	9
Port Arthur, Ont.	Port Arthur Shipbuilding Co.	390	412	..	62	13½
Port Dalhousie, Ont.	Muir Brothers	412	...	62	..	18
Port Huron, Mich.	Reid Wrecking Co., graving dock	234	236	41	..	12
Rocky River, Ohio	Rocky River Dry Dock Co.					
Saginaw, Mich.	Clarke, Stickney & Cram, marine railway	130	130	29	29	9
Sandusky, O.	The Lake Erie Dry Dock & Mill Co.	160	...	..	..	8½
Sault Ste. Marie, Mich.	Hickler Bros. Marine Ry., 1,000 tons capacity					13½ aft
So. Chicago, Ill.	Chicago Ship Bldg. Co.					
Sturgeon Bay, Wis.	Rieboldt, Wolter & Co., four sets of floating dry docks, 70, 100, 150 and 215 ft., length on blocks, respectively	...	...	..	52	13
Superior, Wis.	Superior Ship Building Co., Dock No. 1	475	514	51½	92	15
Superior, Wis.	Superior Ship Building Co., Dock No. 2	547	620	66½	105	18
Toledo, O.	A. Gilmore's Sons	230	235	37	55	9½
Toledo, O.	Toledo Marine Ry. (James Scanes, Mgr.)	102	102	32	32	10½
Toledo, O.	The Toledo Ship Building Co., No. 1	480	500	52 58	90	14
Toledo, O.	The Toledo Ship Building Co., No. 2	550	570	70½ 77½	103	14
Toronto, Ont.	Peter Arnot	125	200	32	32	10.6
Wyandotte, Mich.	Davis Boat & Car Co., marine railway	140	...	..	..	12

VESSEL TIME CARD AND DISTANCE TABLE OF LAKE PORTS

BETWEEN LAKE ERIE PORTS AND DETROIT

Speed per hour. (Time is in hours and minutes.)

Detroit to	Miles	7 mi.	8 mi.	9 mi.	10 mi.	11 mi.	12 mi.	13 mi.	14 mi.	15 mi.	16 mi.
Buffalo	256	26.34	32	28.27	25.36	23.16	21.20	19.41	18.17	17.4	16
Erie	187	26.42	23.22	20.46	18.42	17	15.35	14.23	13.21	12.28	11.41
Conneaut	160	22.51	20	17.46	16	14.32	13.20	12.18	11.25	10.40	10
Ashtabula	146	20 50	18.15	16.14	14.36	13.16	12.10	11.13	10.25	9.44	9.7
Fairport	121	17.17	15.7	13.26	12.6	11	10.5	9.18	8.38	8.4	7.33
Cleveland	105	15	13.7	11.40	10.30	9.32	8.45	8.4	7.30	7	6.33
Lorain	88	12.34	11	9.46	8.48	8	7.20	6.46	6.17	5.52	5.30
Huron	78	11.8	9.45	8.40	7.48	7.5	6.30	6	5.34	5.12	4.52
Sandusky	69	9.51	8.37	7.40	6.54	6.16	5.45	5.18	4.55	4.36	4.18
Toledo	56	8	7	6.13	5.36	5.5	4.40	4.18	4	3 41	3.30

BETWEEN DETROIT AND SAULT STE. MARIE AND MACKINAW

Speed per hour. (Time is in hours and minutes.)

Detroit to	Miles	7 mi.	8 mi.	9 mi.	10 mi.	11 mi.	12 mi.	13 mi.	14 mi.	15 mi.	16 mi.
Sault Ste. Marie	346	49.25	43.15	38.26	34.36	31.27	28.50	26.37	24.43	23.4	21.37
Mackinaw	311	44.25	38.53	34.33	31.6	28.16	25 55	23.55	22.13	20.41	19.26

BETWEEN MACKINAW AND LAKE MICHIGAN PORTS

Speed per hour. (Time is in hours and minutes.)

Mackinaw to	Miles	7 mi.	8 mi.	9 mi.	10 mi.	11 mi.	12 mi.	13 mi.	14 mi.	15 mi.	16 mi.
Escanaba	128	18.17	16	14.13	12.48	11.38	10.40	9.50	9.8	8.32	8
Green Bay	198	28.17	24.45	22	19.48	18	16.30	15.13	14.8	13.12	12.22
Manitowoc	194	27.42	24.15	21.33	19.24	17.38	16.10	14.55	13.51	12.56	12.7
Sheboygan	214	30.34	26.45	23.46	21.24	19.27	17.50	16.27	15.17	14.16	13.22
Milwaukee	258	36.51	32.15	28.40	25.48	23.27	21.30	19.50	18.25	17.12	16.7
Racine	270	38.34	33.45	30	27	24.32	22.30	20.46	19.17	18	16.52
Chicago	323	46.8	40.22	35.53	32.18	29.21	26.55	24.50	23.4	21.32	20.11
South Chicago	338	48.17	42.15	37.33	33.48	30.43	28.10	26	24.8	22.32	21.7

BETWEEN SAULT STE. MARIE AND LAKE SUPERIOR PORTS

Speed per hour. (Time is in hours and minutes.)

Sault Ste. Marie to	Miles	7 mi.	8 mi.	9 mi.	10 mi.	11 mi.	12 mi.	13 mi.	14 mi.	15 mi.	16 mi
Marquette	158	22.34	19.45	17.33	15.48	14.21	13.10	12.9	11.17	10.32	9.22
Ashland—Bayfield—Washburn	347	49.34	43.22	38.33	34.42	31.32	28.55	26.41	24.47	23.8	21.41
Ft. William—Port Arthur	272	38.51	34	30.14	27.12	24.43	22.40	20.55	19.25	18.8	17
Two Harbors	371	53	46.22	41.13	37.6	33.43	30.55	28.32	26.30	24.44	23.1
Duluth	394	56.17	49.15	43.46	39.24	35.49	32.50	30.18	28.8	26.16	24.2

BOAT	SPEED Loaded.	SPEED Light.	BOAT	SPEED Loaded.	SPEED Light.

PILOT'S READY RECKONER

The Pilot's Ready Reckoner, published herewith, is copyrighted by Capt. M. G. Allen, who gave the Ship Masters' Directory permission to reproduce it.

The following table was calculated to aid pilots in ascertaining the distance a vessel on a certain course will pass an object when abeam by bearings from the course of ¼ to 7¾ points. It is calculated up to twenty miles.

It is also available to ascertain the leeway or current action to which the vessel is subject.

It will be noticed by the pilot that exactness depends upon his knowing the speed of his vessel and the time she is due abreast the object or his judgment as to the distance the vessel must run to bring the object abeam.

For example, suppose the vessel is a twelve mile boat and due abreast the object in an hour and twenty-five minutes (seventeen miles to run) and that the object bears two and a quarter points on the bow. Enter the table where the heading says "Difference between course and bearing 2¼ points" then follow down column to seventeen, opposite which is the figure 8, denoting the miles the vessel will be off the object when abeam.

To prove your calculation is correct and that your course is making good—that your vessel is not subject to the action of some unseen force such as current, or that your calculation as to leeway is correct, the bearing should be three points on the bow at twelve miles to run and four points on the bow at eight miles to run.

As another illustration, suppose the object bears 1¼ points on the bow at 16 miles to run the ship should clear by four miles, and to find if the vessel is making good the calculation and not drifting for any reason the bearing should be nearly 2 points on the bow at 10 miles to run and 3 points on the bow at 6 miles to run, 3½ points on the bow at 5 miles to run and 4 points on the bow at 4 miles to run.

A bearing can be taken at every mile if necessary to ascertain how much influence wind or current has upon the vessel.

To Ascertain Leeway

Take a bearing of some known object and as an illustration say it is one point on the bow with fifteen miles to run to bring the vessel abreast this object. This course barring leeway would bring the vessel three miles off. Upon taking your second bearing you find the object bears one and three-quarters points on the bow at ten miles to run, showing three and a half miles off. The vessel has drifted one-half mile in going five, which according to the table would be one-half point leeway. Taking a third bearing at five miles to run the object should bear three and a half points on the bow, showing four miles off. This course uncorrected would bring the vessel four and a half miles off.

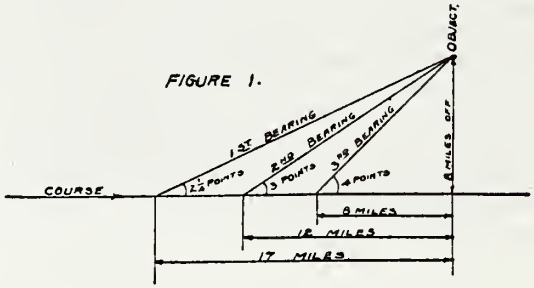


FIGURE 1.
OBJECT
1ST BEARING
2ND BEARING
3RD BEARING
8 MILES OFF
COURSE
2½ POINTS
3 POINTS
4 POINTS
8 MILES
12 MILES
17 MILES

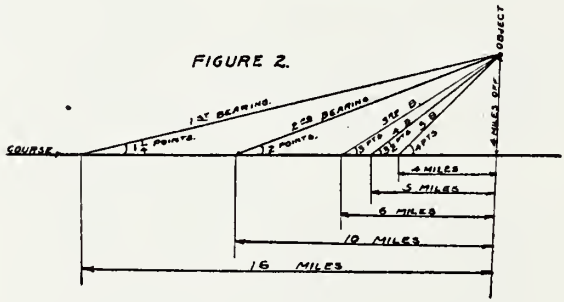


FIGURE 2.
OBJECT
1ST BEARING.
2ND BEARING
4 MILES OFF
COURSE
1½ POINTS.
2 POINTS.
4 MILES
5 MILES
6 MILES
10 MILES
16 MILES

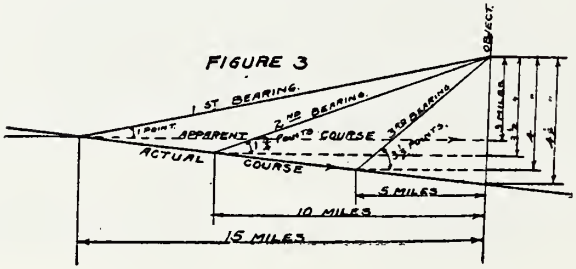


FIGURE 3
OBJECT
1ST BEARING.
2ND BEARING
1 POINT
APPARENT
1½ POINTS COURSE
3RD BEARING
2 POINTS.
ACTUAL
COURSE
5 MILES
10 MILES
15 MILES

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
¼ Point		½ Point		¾ Point		1 Point	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	.05	1	.10	1	.15	1	.20
2	.10	2	.20	2	.30	2	.40
3	.15	3	.30	3	.45	3	.60
4	.20	4	.40	4	.60	4	.80
5	.25	5	.50	5	.75	5	1.00
6	.30	6	.60	6	.90	6	1.20
7	.35	7	.70	7	1.05	7	1.40
8	.40	8	.80	8	1.20	8	1.60
9	.45	9	.90	9	1.35	9	1.80
10	.50	10	1.00	10	1.50	10	2.00
11	.55	11	1.10	11	1.65	11	2.20
12	.60	12	1.20	12	1.80	12	2.40
13	.65	13	1.30	13	1.95	13	2.60
14	.70	14	1.40	14	2.10	14	2.80
15	.75	15	1.50	15	2.25	15	3.00
16	.80	16	1.60	16	2.40	16	3.20
17	.85	17	1.70	17	2.55	17	3.40
18	.90	18	1.80	18	2.70	18	3.60
19	.95	19	1.90	19	2.85	19	3.80
20	1.00	20	2.00	20	3.00	20	4.00

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
1¼ Points		1½ Points		1¾ Points		2 Points	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	.25	1	.30	1	.35	1	.41
2	.50	2	.60	2	.71	2	.82
3	.75	3	.91	3	1.06	3	1.23
4	1.00	4	1.21	4	1.42	4	1.65
5	1.25	5	1.51	5	1.78	5	2.06
6	1.50	6	1.82	6	2.13	6	2.47
7	1.76	7	2.12	7	2.49	7	2.88
8	2.01	8	2.42	8	2.84	8	3.30
9	2.26	9	2.73	9	3.20	9	3.71
10	2.51	10	3.03	10	3.56	10	4.12
11	2.76	11	3.33	11	3.91	11	4.53
12	3.01	12	3.64	12	4.27	12	4.95
13	3.26	13	3.94	13	4.62	13	5.36
14	3.52	14	4.24	14	4.98	14	5.77
15	3.77	15	4.55	15	5.34	15	6.18
16	4.02	16	4.85	16	5.69	16	6.60
17	4.27	17	5.15	17	6.05	17	7.01
18	4.52	18	5.45	18	6.40	18	7.42
19	4.77	19	5.75	19	6.76	19	7.83
20	5.03	20	6.06	20	7.12	20	8.25

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
2¼ Points		2½ Points		2¾ Points		3 Points	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	.5	1	.5	1	.6	1	.7
2	.9	2	1.1	2	1.2	2	1.3
3	1.4	3	1.6	3	1.8	3	2.0
4	1.9	4	2.1	4	2.4	4	2.6
5	2.3	5	2.6	5	3.0	5	3.3
6	2.8	6	3.2	6	3.6	6	4.0
7	3.3	7	3.7	7	4.1	7	4.6
8	3.8	8	4.2	8	4.7	8	5.3
9	4.2	9	4.7	9	5.3	9	6.0
10	4.7	10	5.3	10	5.9	10	6.6
11	5.2	11	5.8	11	6.5	11	7.3
12	5.7	12	6.3	12	7.1	12	8.0
13	6 1	13	6.8	13	7.7	13	8.6
14	6.6	14	7.4	14	8 3	14	9.3
15	7.1	15	7.9	15	8.9	15	10.0
16	7.5	16	8.5	16	9.5	16	10.6
17	8.0	17	9.0	17	10.1	17	11.3
18	8.5	18	9.5	18	10.7	18	12.0
19	9.0	19	10.1	19	11.3	19	12.6
20	9.4	20	10.6	20	11 9	20	13.3

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff Between Course & Bear.	
3¼ Points		3½ Points		3¾ Points		4 Points	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	.7	1	.8	1	.9	1	1.
2	1.4	2	1.6	2	1.8	2	2.
3	2.2	3	2.4	3	2.7	3	3.
4	2.9	4	3.2	4	3.6	4	4.
5	3.7	5	4.0	5	4.5	5	5.
6	4.4	6	4.8	6	5.4	6	6.
7	5.2	7	5.6	7	6.3	7	7.
8	5.9	8	6.4	8	7.2	8	8.
9	6 6	9	7.3	9	8.1	9	9.
10	7.4	10	8.1	10	9.0	10	10.
11	8 1	11	8.9	11	9.9	11	11.
12	8.9	12	9.7	12	10.8	12	12.
13	9.6	13	10.5	13	11.7	13	13.
14	10.4	14	11.3	14	12.7	14	14.
15	11.1	15	12.2	15	13.6	15	15.
16	11.9	16	13.0	16	14.5	16	16.
17	12.6	17	13.8	17	15.4	17	17.
18	13.4	18	14.6	18	16 3	18	18.
19	14.1	19	15.4	19	17.2	19	19.
20	14.9	20	16.3	20	18.1	20	20.

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
4¼ Points		4½ Points		4¾ Points		5 Points	
Dist to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	1.1	1	1.2	1	1.4	1	1.6
2	2.2	2	2.5	2	2.7	2	3.0
3	3.3	3	3.7	3	4.1	3	4.6
4	4.4	4	4.9	4	5.4	4	6.0
5	5.5	5	6.1	5	6.8	5	7.6
6	6.6	6	7.4	6	8.1	6	9.0
7	7.8	7	8.6	7	9.4	7	10.6
8	8.9	8	9.9	8	10 8	8	12.0
9	10.0	9	11.1	9	12.2	9	13.6
10	11.1	10	12.3	10	13 6	10	15.0
11	12.2	11	13.5	11	14.9	11	16.6
12	13.3	12	14.8	12	16.3	12	18.0
13	14.4	13	16.0	13	17.6	13	19.6
14	15.5	14	17.2	14	19.0	14	
15	16.6	15	18.5	15		15	
16	17.7	16	19.7	16		16	
17	18.8	17		17		17	
18	19.9	18		18		18	
19		19		19		19	
20		20		20		20	

Diff. Between Course & Bear. 5¼ Points		Diff. Between Course & Bear. 5½ Points		Diff. Between Course & Bear. 5¾ Points		Diff Between Course & Bear. 6 Points	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	1.7	1	1.9	1	2.2	1	2.5
2	3.4	2	3.8	2	4.3	2	4.9
3	5.1	3	5.7	3	6.4	3	7.3
4	6.7	4	7.6	4	8.6	4	9.7
5	8.4	5	9.5	5	10.7	5	12.1
6	10.1	6	11.3	6	12.8	6	14.5
7	11.7	7	13.2	7	14.9	7	16.9
8	13.5	8	15.1	8	17.0	8	19.3
9	15.2	9	16.9	9	19.1	9	
10	16.8	10	18.8	10		10	
11	18.5	11		11		11	
12		12		12		12	
13		13		13		13	
14		14		14		14	
15		15		15		15	
16		16		16		16	
17		17		17		17	
18		18		18		18	
19		19		19		19	
20		20		20		20	

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
6¼ Points		6½ Points		6¾ Points		7 Points	
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	2.8	1	3.3	1	4.	1	5.
2	5.6	2	6.6	2	8.	2	10.
3	8.4	3	9.9	3	12.	3	15.
4	11.2	4	13.2	4	15.9	4	20.
5	14.0	5	16.5	5	19.8	5	
6	16.8	6	19.7	6		6	
7	19.6	7					

Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.		Diff. Between Course & Bear.	
7¼ Points		7½ Points		7¾ Points			
Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off	Dist. to Run	Dist. Off
Miles	Miles	Miles	Miles	Miles	Miles	Miles	Miles
1	6.75	1	10.	1	20.		
2	13.50	2	20.				
3	20.00						

DETROIT RIVER POSTAL SERVICE

Regulations as Published by the Postmaster of the City of Detroit

It will be necessary for boats desiring to receive or deliver United States mail to enter the American channel, but only at the point of delivery.

The station will be located at the foot of First street, and deliveries will be made as nearly opposite that point as possible by a launch and small boats, the service being a continuous one day and night.

When telegrams from passing vessels are handed to the marine letter carrier, the amount of money accompanying same, in addition to the cost of the message, should be sufficient to attach a 2-cent postage stamp to same.

The delivery of telegrams may be had by instructing the telegraph company to attach a 2-cent stamp to the telegram, and, for immediate delivery, the addition of a special delivery stamp.

Mail for delivery from the marine postoffice should be directed to the "Marine Postoffice, Detroit, Mich.," and deliveries will be made throughout the entire period of navigation.

The signal to passing boats from the United States mail boat for delivery of mail will be one long whistle, one short whistle, one long whistle.

Signal for steam vessels wanting the mail boat to call for mail: One long whistle, one short whistle, one long whistle.

Signal for sailing vessels requiring mail boat: White flag by day, flashing bright light at night.

Signal from mail boat to large boats to check down: Three blasts of mocking bird whistle.

Signal from row boat belonging to mail boat when approaching vessels for delivery of mail: White flag in day time, swinging bright light at night.

IMPORTANT: Letters and packages will be received from passing boats by the marine carriers for registration and a receipt issued to the senders at the time, but registered letters and parcels can not be delivered to passing boats, as the necessary identification and receipts can not be had. The addressees of such letters and parcels

are, however, duly notified by mail of their receipt, and that they will be held at the postoffice the usual time, subject to their order to forward or to deliver to some person ashore.

Money orders can also be procured through the marine carriers by following the instructions issued by the postmaster; if not provided with a copy of same, apply to the carrier.

RULES AND REGULATIONS

For Navigating Lower Detroit River

Approved by the Secretary of War, October 17, 1912

Definitions The Lower Detroit River is that portion of the Detroit River between the Mamajuda range lights and Lake Erie

Speed under these rules shall in all cases be speed over the bottom.

These rules shall replace all rules and regulations heretofore published for navigating the Lower Detroit River.

Rule 1. No vessel of 100 gross tons or over shall navigate the Livingstone Channel at a rate of speed greater than ten statute miles per hour between its junction with the Amherstburg Channel at Ballards Reef and the Bar Point light vessel; nor the Amherstburg Channel at a rate of speed greater than twelve statute miles per hour between the south end of Bois Blanc Island and the north gas buoys at Ballards Reef, and where the width of this channel is restricted by improvements in progress, through such restricted width of channel the speed shall not exceed eight statute miles per hour.

Rule 2. Downbound freight vessels shall pass through the Livingstone Channel and enter Lake Erie via the channel west of Detroit River lighthouse. All upbound vessels shall enter Detroit River via the channel east of Detroit River lighthouse, and pass through the Amherstburg Channel.

Vessels under 100 gross tons, and vessels making local stops along these routes, are exempt from this rule.

Rule 3. Passenger vessels may use the Amherstburg Channel downbound, but should they pass down through the Livingstone Channel they shall be subject to the rules governing that channel.

Rule 4. All upbound light-draft vessels and all passenger vessels using the Amherstburg Channel shall pass through the auxiliary chan-

nel to the eastward of the improved channel at Ballards Reef. This auxiliary channel is 280 ft. wide and 14.5 ft. deep at low-water datum. The depth of water in this channel is posted in the cupola of building occupied by Duff and Gatfield, marine reporters, at Texas Dock.

Rule 5. No vessel shall pass, or approach within one-quarter mile of another vessel bound in the same direction in that portion of Livingstone Channel between its junction with the Amherstburg Channel at Ballards Reef and Bar Point light vessel; nor at any other portion of either channel where the width of channel is restricted by improvements in progress.

Tugs without tows and vessels under 100 gross tons are exempt from this rule.

Rule 6. Any vessel approaching a tug with a tow moving in the same direction may pass such tow by giving a signal indicating upon which side the vessel desires to pass, and it shall be the duty of the pilot of the tug to sheer clear of the side of the channel indicated and give the passing vessel all possible room.

Rule 7. No vessel shall anchor within the limits of either channel except in distress or under stress of weather. Any vessel so anchored shall be moved as quickly as possible to such anchorage as will leave the channel clear for the passage of vessels.

Rule 8. No vessel shall tow another through any of the improved channels unless such vessel moves the tow at least five miles per hour over the bottom; and no vessel of ten gross tons or over shall navigate the improved channels under sail power alone.

Rule 9. All vessels passing dredges, drill scows, derrick scows, or other stationary plant engaged on improvements to the channels are required to slacken their speed when given a signal by three distinct blasts of the steam whistle.

Rule 10. No vessel shall pass or attempt to pass another vessel or vessels moving in the same or opposite directions at any place in Lower Detroit River, in such a position that more than two vessels will be abreast when passing.

Rule 11. Three long blasts of the steam whistle, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given is proceeding at too high a rate of speed, and such vessel must immediately moderate her speed accordingly.

Rule 12. Four long blasts of the steam whistle, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given must stop until further orders from the patrolling vessel.

Rule 13. One long blast followed by four short blasts, when sounded from a patrolling vessel, will indicate that the vessel to which such signal is given may proceed on her course.

Rule 14. A vessel aground in or near a channel, or a vessel which from any accident is not under command, shall show from sunset to sunrise, at a height of not less than twenty feet nor more than forty feet above the hull, two lights in a vertical line one above the other and not less than six feet apart, and so fixed as to be visible to both up and downbound vessels. The upper of these lights shall be red. If the nature of the accident is such that the channel is closed, the lower of these lights shall also be red. But if the nature of the accident is such that vessels can pass in safety, the lower of these lights shall be white.

Such vessel shall not show the lights required for a vessel at anchor.

Such vessel shall, if the accident has closed the channel, sound a signal of several short and rapid blasts of the steam whistle to any approaching vessel, whereupon the approaching vessel shall stop and repeat this signal to any vessel coming up astern of her.

But if the accident has not rendered passing unsafe, such vessel shall sound a signal of three distinct blasts to any approaching vessel, whereupon the approaching vessel shall answer with the same signal of three distinct blasts and shall reduce her speed and pass with caution.

Such vessel shall in no case give or answer a passing signal without first giving several short and rapid blasts of the steam whistle.

It shall be the duty of the Master of the first vessel passing such vessel to report the place and nature of the accident to the next marine reporting station or patrol boat.

RULES AND REGULATIONS FOR NAVIGATING THE SAINT CLAIR RIVER, MICH., IN THE VICINITY OF STAG ISLAND

The United States Government having improved the channel to the westward of Stag Island by the removal of shoals, the following regulation is promulgated by the Secretary of War in pursuance of the provisions of Section 4 of the river and harbor act of August 18, 1894, as amended by Section 11 of the river and harbor act of June 13, 1902.

All through-bound vessels in passing through the river at this point shall keep to the right, that is to say, all up-bound boats shall pass through the eastern channel and all down-bound boats through the western channel.

This rule shall only apply to through-bound vessels and not to vessels running between local points on the river, which vessels may take either channel, conforming to the ordinary rules of the road at sea.

ROBERT SHAW OLIVER,
Assistant Secretary of War.

War Department, January 8, 1907.

The following regulation governing the speed of vessels navigating the St. Clair river in front of Sarnia has been approved by both the United States and Dominion Governments:

The speed of vessels navigating the waters of St. Clair river in front of the city of Sarnia shall not exceed nine miles per hour.

The city limits of Sarnia extend from just below the international tunnel to about opposite Bay Point.

War Department, Sept. 16, 1909.

The Canadian Government have concurred in the foregoing regulations for the navigation of the St. Clair River.

Penalties for Violations

Every person and every corporation which shall violate such rules and regulations shall be deemed guilty of a misdemeanor and, on conviction thereof in any district court of the United States within whose territorial jurisdicion such offense may have been committed, shall be punished by a fine not exceeding five hundred dollars, or by imprisonment (in case of a natural person) not exceeding six months, in the discretion of the court.

REGULATIONS FOR CHICAGO HARBOR

Ordinance passed Dec. 13th, 1909, amending Section 1016 of the Revised Municipal Code of Chicago of 1905, as follows:

Section 1016. Steam Tugs for Vessels—Penalty. All vessels, craft or floats not propelled by steam, navigating the harbor for which the opening of any bridge may be necessary, shall, while approaching and passing such bridge be towed by a steam tug. Any steam boat, vessel, craft or float propelled by steam of twelve hundred (1,200) tons gross burden or more, while navigating the portion of the Chicago River bounded by the Rush street bridge on the east, the Twelfth street bridge on the south and the Chicago avenue bridge on the north, all inclusive, shall have the assistance of a tug or tugs. It shall be unlawful for any steam boat, vessel, craft or float of twelve hundred (1,200) tons gross burden or more to back through any bridge draw in the Chicago River or the Calumet River within the limits of the City of Chicago without the assistance of a tug or tugs Page 2139 Council Proceedings.

The mayor of Chicago has suspended this ordinance pending court decision on litigation so that it is not obligatory on a vessel master to take a tug on the Chicago river unless he thinks it necessary to do so.

RULES FOR THE SAINT MARY'S RIVER

Rule 1. These rules shall apply to the waters of Saint Mary's River from Point Iroquois on Lake Superior to Point Detour on Lake Huron, except those waters included in the Saint Mary's Falls Canals.

Speed under these rules shall in all cases be speed over the bottom.

Rule 2. No vessel of 500 gross tons or over shall navigate the Saint Mary's River at a rate of speed greater than ten statute miles per hour between Everen's Point and the float lights in Hay Lake marking the northern end of the Middle Neebish Channel, nor between the post lights in Hay Lake and in Mud Lake marking the upper and lower ends, respectively, of the West Neebish Channel, nor be-

tween Six Mile Point Rear Light and the intersection of Cedar Point and Birch Point Ranges.

Rule 3. No vessel of 500 gross tons or over shall pass up the West Neebish Channel nor down the Middle Neebish Channel except vessels making a regular local stop on these channels and vessels bound in or out of the Saint Joseph or Lake George Channels at Harwood Point.

Rule 4. No vessel shall pass, or approach within one-quarter mile of, a vessel bound in the same direction in any of those portions of the channels where speed is restricted to ten statute miles per hour except between Bayfield Rock and the Saint Mary's Falls Canals, and, for upbound vessels only, between Vidal Shoal and Black Gas Buoy No. 3, off Brush Point.

Tugs without tows and local passenger boats under 500 gross tons are exempt from this rule.

Rule 5. Any vessel approaching a tug towing a dredge or scow moving in the same direction may pass such tow by giving a signal indicating upon which side the vessel desires to pass, and it shall be the duty of the pilot of the tug to sheer clear of the side of the channel indicated and give the vessel all possible room.

Rule 6. No vessel or raft shall anchor in any of the improved channels nor off Big Point within one-quarter mile of the waterworks intake crib, except vessels in distress or under stress of weather.

Any vessel or raft so anchored shall at once shift anchorage as directed by the Supervisor of Anchorages.

Rule 7. Vessels towing, while engaged in shortening or lengthening tow lines, or dropping or making up tows; vessels mooring or unmooring, anchoring or hoisting anchor; vessels loading or discharging stores from boats alongside; and vessels awaiting supply boats are required to haul, clear of the range when possible and to permit the unobstructed passage of other vessels.

Rule 8. No vessel is allowed to tow more than one vessel through any of the improved channels unless the vessel moves the tow at least five miles per hour over the bottom; and no vessel of ten gross or over shall navigate the improved channels under sail power alone.

Rule 9. Every upbound vessel shall, when abreast of Everen's Point, sound a ten-second blast of the steam whistle, which shall be answered by any descending vessel between Dark Hole Gas Buoy and Johnston Point.

Every vessel bound down the Middle Neebish Channel shall, when abreast of Dark Hole Gas Buoy, sound a ten-second blast of the steam

whistle, which shall be answered by a like blast from any upbound vessel between Everen's Point and Johnston's Point.

Immediately after such exchange of signals the passing signals shall be exchanged.

Masters are cautioned not to sound the ten-second blast required by this rule before reaching the points named.

Rule 10. All vessels passing dredges and other vessels engaged on improvements to the channels are required to slacken their speed upon such dredge or vessel giving the signal of three distinct blasts of the steam whistle.

Rule 11. No vessel shall pass or attempt to pass another vessel or vessels moving in the same direction in such a position that more than two vessels will be abreast when passing.

Rule 12. Rafts are required to use the Old or Lake George Channel. When lying by they shall be moored clear of the channel. From Harwood Point to Mud Lake Crib Gas Buoy they will move only when and as directed by the Supervisor of Anchorages.

Rafts originating in Hay Lake shall be moved only at such times and under such conditions as the Supervisor of Anchorages may direct.

Rule 13. A vessel aground in or near a channel, or a vessel which from any accident is not under command, shall show from sunset to sunrise, at a height of not less than twenty feet nor more than forty feet above the hull, two lights in a vertical line one above the other and not less than six feet apart and so fixed as to be visible to both up and downbound vessels. The upper of these lights shall be red. If the nature of the accident is such that the channel is closed, the lower of these lights shall be red. But if the nature of the accident is such that vessels can pass in safety, the lower of these lights shall be white.

Such vessel shall not show the lights required for a vessel at anchor.

Such vessel shall, if the accident has closed the channel, sound a signal of several short and rapid blasts of the steam whistle to any approaching vessel, whereupon the approaching vessel shall stop and shall repeat this signal to any vessel coming up astern of her.

But if the accident has not rendered passing unsafe, such vessel may sound a signal of three distinct blasts to any approaching vessel, whereupon the approaching vessel shall answer with the same signal of three distinct blasts and shall reduce her speed and pass with caution.

Such vessel shall in no case give or answer a passing signal without first giving several short and rapid blasts of the steam whistle.

And it shall be the duty of the master of the first vessel passing such vessel to report the place and nature of the accident to the next lookout station, canal office, or patrol boat.

Rule 14. Whenever vessels collect in any part of the river by reason of fog, smoke, ice, or the obstruction of any of the channels, the Supervisor of Anchorages shall direct and control their anchorage and their movements through such channels as the Engineer in charge of the improvements of the Saint Mary's River may declare open and under such restrictions as to order, speed, and towage as the Engineer in charge of the improvements in the Saint Mary's River may deem necessary to facilitate and expedite the passage of commerce. Regular scheduled boats carrying passengers or mails may be advanced in order and any vessel not ready to move when directed will lose her position. All vessels are required to yield prompt and implicit obedience to the directions of the Supervisor of Anchorages.

Rule 15. The patrolling vessels of the United States Revenue-Cutter Service shall have the right of way over all other vessels.

Rule 16. Signals will be used by patrol vessels as follows:

One long blast of the steam whistle followed by one short blast calls attention of nearest patrol boat or lookout station. This signal will also be used by any vessel that wishes to speak to a patrol boat.

Three long blasts of the steam whistle will indicate that the nearest moving vessel is proceeding at too high a rate of speed, and such vessel will at once reduce her speed.

Four long blasts of the steam whistle will indicate that the nearest moving vessel must stop until further orders.

Rule 17. Day and night signals will be displayed from the signal pole at Lookout Station No. 1, Johnson's Point, as follows:

One red light by night or one red ball by day will indicate that the depth of water in the channel is below the normal, and the master of any vessel the draft of which approximates the normal depth will ascertain the depth of water existing in the channel before attempting its passage.

Two red lights by night or two red balls by day will indicate that the channel is closed to upbound vessels, and all such vessels will anchor in the order of their arrival, unless otherwise directed by the patrol boat, on the west side of the ranges from the Mill dock to Everen's Point and on the east side of the sailing lines in

Mud Lake below Mud Lake Crib Gas Buoy, and will so remain anchored as long as these signals are displayed.

Rule 18. The signal of two red lights by night or two red balls by day may be used by the patrol boats or by lookout stations other than No. 1 to signify that vessels approaching a blockaded channel must anchor where designated and so remain anchored until further instructed by a patrol boat.

Rule 19. A white light hoisted on the flagstaff of any lookout station by night or a white flag or ball hoisted under the ensign by day will signify that the lookout has instructions for passing vessels.

Rule 20. The foregoing rules shall not apply to motor boats as defined under the act of Congress approved June 9, 1910, or to sail vessels under ten gross tons.

Rule 21. In all cases where the foregoing rules are not applicable the attention of masters is directed to the Pilot Rules for the Great Lakes and their Connecting and Tributary Waters.

Complaints arising under these rules should be addressed to the "Supervisor of Anchorages, Sault Sainte Marie, Michigan."

Appeals from the assessments of fines will be accompanied by sworn statements in duplicate. They will be addressed to "The Honorable, The Secretary of Commerce and Labor," and must be forwarded through the collector of customs that assessed the fine.

These rules will take effect April 15th, 1911.

BENJ. S. CABLE,
Acting Secretary.

RULES AND REGULATIONS IN CASE OF OBSTRUCTIONS TO COMMERCE IN ST. MARY'S RIVER, MICHIGAN, PRESCRIBED BY THE SECRETARY OF WAR, JANUARY 9, 1907

Under authority of Section 4 of the River and Harbor act of August 18, 1894, as amended by Section 11 of the River and Harbor act of June 13, 1902, the following rules and regulations in case of obstructions to commerce in the St. Mary's River, Michigan, are hereby prescribed:

Whenever any boat, vessel, raft, or other water craft, shall, by reason of grounding, becoming fast in ice, or any other cause, endanger or obstruct, the free passage of vessels, the Engineer Officer in charge of the improvement of St. Mary's River, Michigan, or his duly accredited representative, is hereby authorized to take imme-

diate charge with full power to stop all vessels and direct their anchorage; to clear a channel; to designate the order in which all vessels shall proceed after the channel is opened; and to do all other things necessary and proper to facilitate and expedite the passage of commerce.

While in the performance of this duty all orders of the Engineer Officer, or his agent, shall be obeyed, and any violation of such orders will be considered a misdemeanor punishable by a fine not exceeding five hundred dollars, or by imprisonment (in the case of a natural person) not exceeding six months, in the discretion of the court, as provided in the aforesaid law.

SCHEDULE OF RUNNING TIME ST. MARY'S RIVER

	Distance Miles	Time Min.
Everen's Pt. to Encampment Crib	0.8	5
Encampment Crib to Dark Hole turn	1.6	10
Dark Hole turn to Harwood Pt. turn	3 3	20
Harwood Pt. turn to Junction Buoy No. 35	3.3	20
Junction Buoy to Float Light No. 14	2.8	17
Crib Light opposite Six Mile Pt. to Red Nun Buoy	1.5	9
Red Nun Buoy to Lower end Island cut	1.5	9
Lower end Island cut to North Entrance	1.5	9
North Entrance to Bayfield Shoal dyke	0.5	3
South pier west end to Big Pt.	2.3	14
Big Pt. to Brush Pt.	2.3	14
Brush Pt. to intersection of Birch Pt. and Cedar Pt. ranges	5.0	30
BOUND DOWN		
Intersection of Birch Pt. and Cedar Pt. ranges to Brush Pt.	5.0	30
Brush Pt. to Big Pt.	2.3	14
Big Pt. to South pier west end	2.3	14
Bayfield Shoal dyke to North Entrance	0.5	3
North Entrance to lower end Island cut	1.5	9
Lower end Island cut to Red Nun Buoy	1.5	9
Red Nun Buoy to lower Crib Light opposite Six Mile Pt.	1.5	9
Entrance Cribs to Hay Pt. turn Crib No. 22	1.6	10
Hay Pt. turn Crib No. 22 to Lookout Station 4	4.5	27
Lookout Station 4 to Lower Gas Buoy	2.5	15
Lower Gas Buoy to Lookout Station 5	2.8	17
Lookout Station 5 to Mud Lake Cribs 1-2	1.	11

COMPASS COURSES AND DISTANCES

The following tables of corrected compass courses and distances were prepared by Frank Morrison, compass adjuster of Cleveland.

Corrected Compass Courses

Lake Erie	Course	Miles
Buffalo to Long Point	W by S ¾ S	63¾
Long Point to S. E. Shoal	W by S ⅝ S	134
Buffalo to Erie	S W ¾ W	76½
Buffalo to Ashtabula	S W by W ¼ W	117
Buffalo to Fairport	S W by W ½	143
Fairport to Cleveland	S W ½ W	29
Buffalo to Sandusky	S W by W ⅞ W	216
Erie to S. E. Shoal	W ¾ S	126
Ashtabula to S. E. Shoal	W ¼ S	88
Fairport to S. E. Shoal	W ⅜ N	62½
Lorain to S. E. Shoal	N W by N	30
Sandusky to S. E. Shoal	N E by E ½ E	

Lake Huron	Course	Miles
Fort Gratiot to Sand Beach	N ⅝ W	58½
Sand Beach to Tunder Bay	N by W ½ W	87½
Thunder Bay to Presque Isle	N W by N ¾ N	26½
Presque Isle to Forty-Mile Point	N W by W ⅝ W	47
Thence Cheboygan Light	West	8
Presque Isle to Detour	N W by N ⅛ N	45
Detour to Cheboygan	S W ⅝ W	30
Detour to Bois Blanc	W by S ½ S	26¼
Thence to Straits of Mackinac	West	9¾

Lake Michigan	Course	Miles
Waugoshance to North Manitou	S W ⅝ S	65½
North Manitou to Point Betsey		30
Pt. Betsey to Chicago	S by W ¼ W	207
Waugoshance to Milwaukee north of Manitous	S W ⅜ W	62
Thence	S W by S ⅝ S	177
Waugoshance to Poverty north of Beavers	W ½ N	14
Thence	S W by W ½ W	58
Waugoshance to Beavers	S W ½ W	27
Beavers to Poverty	W ½ S	55
Chicago to the Door	N ⅜ E	238
Milwaukee to the Door	N by E ⅛ E	159½

Straits of Mackinac	Course	Miles
Cheboygan to Mackinac	N W by W ¼ W	19
Mackinaw Point to Waugoshance	West	18½

Lake Superior	Course	Miles
Iroquois to Whitefish Point	N W ¾ N	25¼
Whitefish Point to Sable Point	W ½ S	50¾
Thence to Marquette	W by S ¼ S	60
Whitefish to Huron Island	W ¼ N	145
Thence to Portage entrance	W ½ S	20
Whitefish Point to Copper Harbor ..	W by N ⅝ N	145½
Copper Harbor to Eagle Harbor	West	7
Thence	W by S	8
Eagle Harbor to Devil Isle	W by S ½ S	124
Devil Isle to Duluth	S W by W ½ W	68
Eagle Harbor to Two Harbors	W by S ½ S	168
Eagle Harbor to La Point	S W by W ½ W	5

DISTANCES

	Erie	Ashtabula	Fairport	Cleveland		Escanaba	Chicago	Marquette	Ashland	Two Harbors	Duluth
Buffalo	80	117	143	173	696	825	892	760	949	973	998
Erie	...	43	73	101	626	756	822	691	880	904	928
Ashtabula	...	...	27	56	585	715	781	650	839	863	887
Fairport	...	...	...	30	563	693	759	628	817	841	865
Cleveland	...	...	...	...	544	674	739	609	798	822	846
Escanaba	...	...	...	...	...	201	275	339	578	602	626
Milwaukee	...	...	...	...	...	...	83	519	708	732	755
Chicago	...	...	...	...	...	...	...	584	773	797	820
Marquette	...	...	...	...	...	...	...	...	...	...	279
Ashland	...	...	...	...	...	...	...	...	...	72	94
Two Harbors	...	...	...	...	...	...	...	...	...	...	27

Distances to Chicago are by south passage; if by middle passage add nine miles; if west passage add 17 miles to the distances to Lake Superior and Lake Erie ports.

THE USE OF THE BEARING INDICATOR

Presented with Compliments of Buffalo Lodge

(1) How to find error of the compass by the north star.

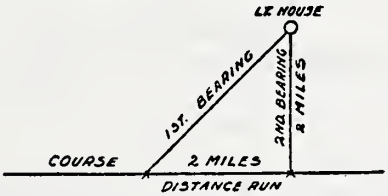
(2) And by the rising and setting sun.

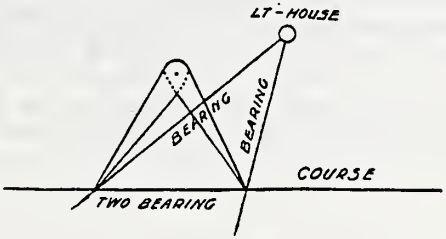
(3) How to obtain the distance off from a lighthouse or other known objects by bearings known as the four-point bearing, the cross bearing or the two-bearing method which are thus explained.

(1) To obtain the error of the compass by a bearing of the north star: Set the dial of the indicator same as the pilot house compass, then point the sight-bar toward the north star and the indicator will show the error at once.

(2) By having the amplitude tables that have been published for the lake region, the error of the compass may be obtained by taking a bearing of the rising or setting sun.

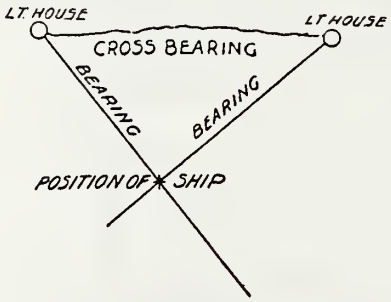
The Four-Point Bearing





The four-point bearing is the most simple and easy bearing to take that will give the exact distance off a lighthouse or other known object without having to use the chart, and is taken thus: For instance, your course is N. ½ W., set the sight-bar at N. W. ½ W., or four (4) points of the bow; when the lighthouse or other object comes in range, note the time or log, or both, then run till the lighthouse or other object is abreast or eight (8) points of the bow, and the distance run between bearings will be the exact distance to the lighthouse.

The cross bearing is a very simple, quick and correct bearing when there are two lighthouses in view, and is taken thus: Take a bearing of each lighthouse and draw them on the chart, and where the lines cross is the position of the ship.



The two bearing method is taken thus: Take a bearing of lighthouse and draw the line on the chart, then run any distance, say a mile or two miles, then take another bearing, and draw it on the chart also, then set the dividers to the distance run, according to scale on chart, and draw them down the bearings on the course you have been steering till one point of the dividers rests on each line, and that will be the location of the ship at each bearing.

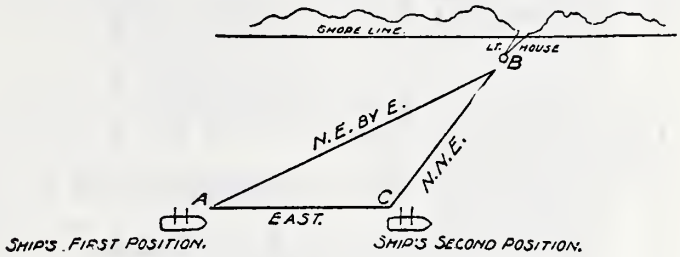
TO FIND A SHIP'S DISTANCE

From a Point of Land or a Light, Without a Table, Chart or Dividers

Submitted by Bro. F. B. Higgie

The problem is of great service when sailing along any coast and is as follows: Suppose any well known shore light bears two or three points on either bow, then let the ship keep on her course till

it bears the same number of points to the left of the first bearing; the distance the ship has run in the interval is her distance from the light at the time of taking the second bearing.



EXAMPLE

Let A be a ship steering east; B a light bearing three points on the port bow, that is, N. E. by E. She proceeds on her course till the light bears three points to the left of N. E. by E., that is N. N. E., then C. B. is equal to C. A. by 6th proposition, first book of Euclid.

RULE

Multiply the distance run in the interval between the two bearings by the number found in the table under the difference between the course and first bearing, and opposite the difference between the course and second bearing. The product is the distance at the time the second bearing was taken.

EXAMPLE—A light when first seen bore W. N. W.; after running W. S. 16 miles it bore N. ½ W. Required its distance when second bearing was taken.

Difference between course and first bearing, 3 points.

Difference between course and second bearing, 8½ points.

Corresponding tabular number, 0.63, and 16 miles x 0.63 = 10.08 miles, the distance required.

Difference between the course the second bearing in points	2	2½	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	10½
4	1.00																	
4½	0.81	1.23																
5	0.69	1.00	1.45															
5½	0.60	0.85	1.17	1.66														
6	0.54	0.74	1.00	1.35	1.85													
6½	0.49	0.67	0.88	1.14	1.50	2.02												
7	0.46	0.61	0.79	1.00	1.27	1.64	2.17											
7½	0.43	0.57	0.72	0.90	1.11	1.39	1.77	2.30										
8	0.41	0.53	0.67	0.82	1.00	1.22	1.50	1.87	2.41									
8½	0.40	0.51	0.63	0.76	0.92	1.09	1.31	1.58	1.96	2.50								
9	0.39	0.49	0.60	0.72	0.85	1.00	1.18	1.39	1.66	2.03	2.56							
9½	0.38	0.48	0.58	0.69	0.80	0.93	1.08	1.25	1.46	1.72	2.08	2.60						
10	0.38	0.47	0.57	0.66	0.76	0.88	1.00	1.14	1.31	1.51	1.76	2.11	2.61					
10½	0.38	0.47	0.56	0.65	0.74	0.84	0.94	1.06	1.19	1.35	1.55	1.79	2.12	2.60				
11	0.39	0.47	0.56	0.64	0.72	0.81	0.90	1.00	1.11	1.24	1.39	1.57	1.80	2.11	2.56			
11½	0.40	0.48	0.56	0.63	0.71	0.79	0.87	0.95	1.05	1.15	1.27	1.41	1.58	1.79	2.08	2.50		
12	0.41	0.49	0.57	0.64	0.71	0.78	0.85	0.92	1.00	1.08	1.18	1.29	1.41	1.57	1.76	2.03	2.41	
12½	0.43	0.51	0.58	0.65	0.71	0.77	0.83	0.90	0.97	1.03	1.11	1.20	1.29	1.41	1.55	1.72	1.96	2.30

Difference between the course and the first bearing in points

No. 1 **Acme Sand & Gravel Co., Cleveland, Ohio.**
Str. Burnham, George.

No. 2 **Algoma Central & Hudson Bay Railways. Algoma Central Steamship Line, W. J. McCormack, Supt.**
Sault Ste. Marie, Ont.
Str. Agawa.
Str. Franz, W. C.
Str. Taylor, J. Frater.
Str. Smith, Home.

No. 3 **Algoma Dredging Co., Ltd.,** Sault Ste. Marie, Ont.
Bge. McWilliam, Ed.

No. 4 **American Box Co.,** Cleveland, Ohio.
American Transit Co.
Str. Stevens, Frank B.

No. 5 **American-Interlake Co.,** Cleveland, Ohio.
Canada Steamship Lines, Ltd.
Str. Dawson, Sir Trevor.
Str. Stadacona.

No. 6 **Anderson, J. M.,** Chicago, Ill.
Schr. Carrier.

No. 7 **Anderson, Wilbur,** Marinette, Wis.
Schr. Grant, Levi.

No. 7½ **Ann Arbor S. S. & Ry. Lines, R. H. Reynolds, Marine Supt.,** Frankfort, Mich.
Str. Ann Arbor No. 3.
Str. Ann Arbor No. 4.
Str. Ann Arbor No. 5.
Str. Ann Arbor No. 6.

No. 8 **Argo Steamship Co.,** Rockefeller Bldg., Cleveland, Ohio.
Str. Argo.

No. 9 **Arnold Transportation Co.,** Mackinac Island, Mich.
Str. Chippewa.
Str. Elva.
Str. Islander.

No. 10 **Ashley & Dustin Steamer Line**, Foot of First St., Detroit, Mich.
Str. Kirby, Frank E.
Str. Put-in-Bay.

No. 11 **Atkinson, W. G.**, Whitby, Ont.
Schr. Guido.

No. 12 **Atlas Steamship Co., R. C. Helm, Mgr.**, Board of Trade, Duluth, Minn.
Str. La Salle.

No. 13 **Atlas Transportation Corp.**, 75 Common St., Montreal, Quebec.
Bge. Ashland.
Bge. Atlasco.
Bge. Augustus.
Bge. Hector.
Bge. Carney, Fred.
Bge. Case, J. I.
Bge. Condor.
Bge. Burma.
Bge. Ireland.
Bge. Kildonan.
Bge. Kingston.
Bge. Lapwing.
Bge. Melrose.
Bge. Menominee.
Bge. Muskoka.
Bge. Rene, J. G.
Bge. Reddington, Nellie
Bge. Selkirk.
Bge. Stephenson, Isaac
Bge. Twin Sisters.
Bge. Valencia.
Bge. Warmington, G. H.
Bge. Winnipeg.
Bge. Woodlands.

No. 14 **Atlas Sand Co., Ltd.**, Montreal, Canada.
Bge. Cobalt.

No. 15 **Auger & Son, Ltd.**, Quebec, Que.
Bge. Auger A.

No. 16 **Barnard, Charles A.**, Montreal, Que.
Str. Shrigley, J. H.

No. 17 **Barlum, J. J., Mgr.**, 354 Grand River Ave., Detroit, Mich.
Postal Steamship Co.
Str. Barlum, John J.
Str. Barlum, Thomas.

No. 18 **Beaver Steamship Co., Ltd.**, Montreal, Que.
Str. Maplegrove.

No. 19 **Becker, William H., Mgr.**, Rockfeller Bldg., Cleveland, Ohio.
Inter-State Steamship Co.
Str. Brower, A. G.
Str. Brown, W. W.
Str. Curry, S. S.
Str. Jones, B. F.
Str. King, Willis L.
Str. Laughlin, James.
Str. Miller, P. P.
Str. Walters. Thomas.
Str. Widlar, Francis.
Valley Steamship Co.
Str. Donaldson, John A.
Str. Grammer, G. J.
Str. Ohl, Edwin N.
Str. Pollock, W. G.
Str. Rhodes, Joshua W.
Str. Robbins, Francis L.
Str. Seither, Frank.
Str. Thompson, Alexis W.

No. 20 **Benton Transit Co.**, Benton Harbor, Mich.
Str. Woods, Frank.

No. 21 **Bielman, C. F.**, Detroit, Mich.
Str. Bielman, Jr., C. F.

No. 22 **Blodgett, O. W.**, Lyceum Bldg., Duluth, Minn.
Str. Bradley, C. H.
Str. Ralph, P. J.
Str. Zillah.
Bge. Arthur.
Bge. Brightie.

Bge. Delaware.
Bge. Goshawk.
Bge. Holland, N. C.
Bge. Miztec.
Bge. Page, M. W.
Bge. Peshtigo.
Bge. Woolson, Mary.

No. 23 **Boland, John J.**, Prudential Bldg., Buffalo, N. Y.
Bge. Jennette.

No. 24 **Boland & Cornelius, Mgrs.**, Prudential Bldg., Buffalo, N. Y.
American Steamship Co.
Str. Boland, John J.
Str. Booth, Edwin L.
Str. Cornelius, Adam E.
Str. Davidson, L. R.
Str. Kopp, Jacob T.
Str. Moll, Clifford F.
Str. Reeb, M. A.
Str. Roberts, W. T.
Str. Wickwire, T. H.
Str. Wickwire, Jr., T. H.
Str. Yates, Harry.
Rochester Steamship Co.
Str. Niagara.

No. 25 **Bonin, Alfred**, Lanoraie, Que.
Bge. Freeport.

No. 26 **Booth, Edward A.**, Kingston, Ont.
Str. Saginaw.

No. 27 **Bourasso, Jas.**, Houghton, Mich.
Str. Hayes, R. B.

No. 28 **Boynton, L. R., Mgr.**, St. Ignace, Mich.
Island Transportation Co.
Str. Algomah.
Str. Wau-Kon.
Str. Chief Wawatam.

No. 29 **Bradley, Carl D., Mgr.**, Rogers City, Mich.
Bradley Transportation Co.
Str. Bradley, Carl D.

Limestone Transportation Co.
Str. White, W. F.

No. 30 Brady Bros., N. Tonawanda, N. Y.
Str. United Lumberman.

No. 31 British Colonies Transportation Co., Ltd., Toronto, Ont.
Sch. Goldman, Celina K.

No. 32 Brown & Co., Mgrs., Chamber of Commerce, Buffalo, N. Y.
Brown Steamship Co.
Str. Brown, J. J. H.
Empire Steamship Co.
Str. Truesdale, Wm. H.

No. 33 Brown & Co., Mgrs., H. H., Rockefeller Bldg., Cleveland, O.
Brown Transit Co.
Str. Brown, Fayette.
Headwaters S. S. Co.
Str. Brown, Harvey H.
Str. Croft, Harry W.
Merrimac Steamship Co.
Str. Bradley, M. A.

No. 34 Brown, Lawrence D., 11312 Clifton Blvd., Cleveland, Ohio.
Str. Aztec.

No. 35 Brown, W. C., Plymouth, Mich.
Str. Helen C.

No. 36 Buckeye Lake Sand & Gravel Co., Sandusky, Ohio.
Str. Groh, Mary.

No. 37 Budreau, Lawrence, Rainey River, Ont.
Str. Agwinde.

No. 38 Buffalo & Fort Erie S. S. Co., Ltd., Ft. Erie, Ont.
Str. Orleans.

No. 39 Buller, Wm., Peterborough, Ont.
Str. Water Lily.

No. 40 Burns, Richard, 153 Ohene St., Detroit, Mich.
Bge. Lozen, J. B.

No. 41 **Cadillac Builders Supply Co.**, Detroit, Mich.
Str. Markham, Geo. C.

No. 42 **Calcite Transportation Co., D. R. Parsons, Mgr.**, Foot Orleans St., Detroit, Mich.
Str. Calcite.

No. 43 **Calvin Co., Ltd.**, Garden Island, Ont.
Str. Parthia.

No. 44 **Cameron Steamship Co.**, Detroit, Mich.
Str. Dahlke, H.
Str. Gunnell, E.

No. 45 **Canada Atlantic Transit Co. of U. S., W. H. Smith, Mgr.**, Canadian Express Bldg., Montreal, Can.
Str. Kearsarge.
Str. Orr, Arthur.

No. 46 **Canada Starch Co., Ltd.**, Cardinal, Ont.
Str. Holcombe, Ralph T.

No. 47 **Canada Steamship Lines, Ltd., J. W. Norcross, Managing Director**, Montreal, Canada, **H. W. Cowan, Operating Supt.**, Toronto, Ont.
Str. Ames, A. E.
Str. Beaverton.
Str. Bickerdike.
Str. Cadillac.
Str. Calgarian.
Str. City of Hamilton.
Str. City of Ottawa.
Str. Collingwood.
Str. Dawson, Sir Trevor.
Str. Edmonton.
Str. Emperor.
Str. Fairfax.
Str. Haddington.
Str. Hagarty, J. H. G.
Str. Hamiltonian.
Str. Iroquois.
Str. Juno.
Str. McKee, J. A.
Str. Maplegrove.
Str. Maplehill.

Str. Mapleton.
Str. Martian.
Str. Matthews, W. D.
Str. Midland Prince.
Str. Midland King.
Str. Morden, W. G.
Str. Omaha.
Str. Osler, E. B.
Str. Phelan, T. P.
Str. Pellatt, H. M.
Str. Sarnian.
Str. Seguin.
Str. Stadacona.
Str. Toiler.
Str. Water Lily.
Str. Wyoming.
Bge. Brookdale.
Bge. Pennington, B. L.
Bge. Reed, Isabella.
Bge. Rickarton.
Bge. Wayne.

(Northern Navigation Division)
H. H. Gildersleeve, Mgr., Sarnia, Ont.
Str. Doric.
Str. Hamonic.
Str. Huronic.
Str. Ionic.
Str. Noronic.
Str. Rochester.
Str. Waubic.

(Richelleu & Ontario Division)
T. Henry, Supt., Montreal, Canada.
Str. Aletha.
Str. America.
Str. Belleville.
Str. Brockville.
Str. Kingston.
Str. Montreal.
Str. Murray Bay.
Str. News Boy.
Str. Quebec.
Str. Ramonia.
Str. Rapids King.

Str. Rapids Prince.
Str. Rapids Queen.
Str. St. Irene.
Str. St. Lawrence.
Str. Saguenay.
Str. Syracuse.
Str. Tadausac.
Str. Thousand Islander.
Str. Trois Rivieres.
Str. Varuna.

No. 48 **Canada Sugar Refining Co., Ltd.**, Montreal, Que.
Schr. Edith.

No. 49 **Canadian Oil Companies, Ltd.**, Toronto, Ont.
Sarnia-Toledo Transit Co., Ltd.
Bge. Calvert, W. S.

No. 50 **Canadian Maritime Co., Ltd.**, Montreal, Que.
Str. Wethersfield.

No. 51 **Canadian Pacific Car & Passenger Transfer Co., Ltd.**, Prescott, Ont.
Str. Lyon, Charles.

No. 52 **Canadian Pacific Railway Co., M. McD. Duff, Mgr.**, Montreal, Que.
Str. Alberta.
Str. Assiniboia.
Str. Athabasca.
Str. Keewatin.
Str. Manitoba.

No. 53 **Canadian Pacific Railway Co., M. McD. Duff, Mgr.**, Montreal, Que.
Str. Michigan.
Str. Ontario.

No. 54 **Canadian Towing & Wrecking Co., Ltd.**, Ft. William, Ont.
Str. Gogebic.
Str. Niagara.
Bge. Coteau.
Bge. Empire.
Bge. Imperial.
Bge. McLaughlin, M. E.

No. 55 **Carrollton Steamship Co.**, Carrollton, Mich.
Str. Langell Boys.

No. 56 **Cavanaugh, W. P.**, Bay City, Mich.
Sch. Weaver, Jennie.

No. 57 **Cedar Point Resort Co.**, Sandusky, Ohio.
Str. Boeckling, G. A.

No. 58 **Central Canada Coal Co., Ltd., Geo. B. Wilkinson, Mgr.**, Brockville, Ont.
Bge. Georger, F. A.

No. 59 **Central Contracting Co., Ltd., C. E. Smith, Mgr.**, Ft. William, Ont.
Central S. S. Co.
Bge. Crete.

No. 60 **Charcoal Iron Co. of America, H. H. Bingham, Mgr.**, Detroit, Mich.
Str. Griffin.

No. 61 **Charland, Emile**, Montreal, Canada.
Sch. Amarine.

No. 62 **Chatham Navigation Co.**, Chatham, Ont.
Str. Ossifrage.

No. 63 **Cheney, Tom**, Ashtabula, Ohio.
Schr. Brown, Belle.

No. 64 **Chesborough, A. M.**, Emerson, Mich.
Schr. Skeele, Edw. E.

No. 65 **Chew, Manley**, Midland, Ont.
Str. Schoolcraft.

No. 67 **Chicago, Duluth & Georgian Bay Transit Co., R. C. Davis, Mgr.**, 314 So. Clark, Chicago, Ill.
Str. North American.
Str. South American.

No. 69 **Citizens Sand & Gravel Co., Capt. C. E. LeBeau, Mgr.,** Foot Magnolia St., Toledo, Ohio.
Str. Sawyer, Philetus.
Tug LeBeau, C. E.
Bge. Jones, C. B.

No. 70 **Cleland, Herbert,** Collingwood, Ont.
Georgian Bay Navigation Co.
Str. Soo City.

No. 71 **Cleveland Engineering Construction Co.,** 778 Arcade, Cleveland, Ohio.
Bge. Cutler, D. G.

No. 72 **Cleveland-Cliffs Iron Co.,** Rockefeller Bldg., Cleveland, Ohio.
Grand Island Steamship Co.
Str. Andaste.
Str. Cadillac.
Str. Grand Island.
Str. Ishpeming.
Str. Marquette.
Str. Mather, W. G.
Str. Michigan.
Str. Munising.
Str. Negaunee.
Str. Pioneer.
Str. Pontiac.
Str. Sheadle, J. H.

Presque Isle Trans. Co.
Str. Angeline.
Str. Presque Isle.
Str. White, Peter.

No. 73 **Cleveland-Cliffs Iron Co., Mgrs.,** Rockefeller Bldg., Cleveland, Ohio.
Paisley Steamship Co.
Str. Central West.
Str. Paisley, Robert J.
Str. Panay.
Str. Schneider, Cletus.
Str. Wesee.

Morrow S. S. Co.
Str. Luzon.
Str. Maher, T. K.
Str. Morrow, John F.
Str. Schneider, A. E. R.
Bge. Hartnell, G. E.

No. 74 Cleveland & Buffalo Transit Co., Foot East 9th St., Cleveland, Ohio.
Str. City of Buffalo.
Str. City of Erie.
Str. Seeandbee.
Str. State of Ohio.

No. 75 Cleveland-Erieau S. S. Co., J. H. Clark, Mgr., Guardian Bldg., Cleveland, Ohio.
Str. Roosevelt, Theodore.

No. 76 Cleveland Transportation Co., A. E. R. Schneider, Mgr., Rockefeller Bldg., Cleveland, Ohio.
Str. Lewiston.

No. 77 Climie, Thomas B., St. Joe Island & Soo Line, Sault Ste Marie, Ont.
Str. Premier.

No. 78 Clow, J. M. & D. D., Marinette, Wis.
Str. Liberty.

No. 79 Clow & Nicholson, Duluth, Minn.
Str. Wehrle, Jr., A.

No. 80 Colbe, Wm. F., Pt. Dover, Ont.
Str. City of Dover.

No. 81 Collingwood Steamship Co., Ltd., Collingwood, Ont.

No. 82 Connolly, H. M., Montreal, Canada.
Str. City of London.

No. 83 Construction Materials Co., 109 N. Dearborn, Chicago, Ill.
Str. Barth, L. L.

No. 84 Cooper, Grant, Toronto, Ont.
Bge. Chambly.
Bge. Hamilton.

No. 85 Crawford Tug Co., Wiarton, Ont.
Bge. Pease, E. S.

No. 86 Crosby Transportation Co., Milwaukee, Wis.
Str. Conestoga.
Davidson Steamship Co.
Str. Davidson, Thomas.
Livingstone Steamship Co.
Str. Livingstone.

No. 87 Crosthwaite, J. L., 15 Broad St., New York City.
Bge. Buckeye State.

No. 88 Cunningham, John, Mattawa, Ont.
Str. City of Hailey Bury.

No. 89 Cuyahoga Lumber Co., 1948 Carter Road, Cleveland, O.
Lake Steamship Co.
Str. Starke, C. H.

No. 90 Daryaw, Henry, Wolf Island, Ont.
Schr. Ford River.
Schr. Taber, Horace.

No. 91 Davidson, James, Bay City, Mich.
Str. Orinoco.
Str. Sacramento.
Str. Shenandoah.
Bge. Chieftain.
Bge. Grampian.
Bge. Granada.
Bge. Matanzas.
Bge. Montezuma.

No. 92 Davidson & Smith, Port Arthur, Ont.
Str. Fryer, R. L.

No. 93 Davis Ship Bldg. Co., Ltd., Montreal, Canada.
Str. North Land.

No. 94 Desmarteau, Alexandre, Montreal, Que.
Str. Boucherville.

No. 95 Desrosiers, Alexandre, Lanoraie, Que.
Schr. Lyon, Mary.

No. 96 **Desrosler, Zenon,** Sorel, Que.
Bge. Kahtadin.

No. 97 **Detroit & Windsor Ferry Co.,** Detroit, Mich.
Str. Brittania.
Str. Columbia.
Str. Excelsior.
Str. Garland.
Str. Pleasure.
Str. Pontiac.
Str. Promise.
Str. Sappho.
Str. St. Clair.
Str. Victoria.

No. 98 **Detroit & Cleveland Navigation Co., A. A. Schantz, Pres. & Gen. Mgr.,** Detroit, Mich.
Str. City of Alpena II.
Str. City of Cleveland III.
Str. City of Detroit III.
Str. City of Detroit II.
Str. City of Mackinac II.
Str. City of St. Ignace.
Str. Eastern States.
Str. Western States.

No. 99 **Diamond Crystal Salt Co.,** St. Clair, Mich.
Douglass Transit Co.
Str. Colborn, A. R.
Str. Hilton.

No. 100 **Dominion Coal Co., Ltd.,** Montreal, Canada.
Bge. Alice.
Bge. Grandee.
Bge. Mabel.

No. 101 **Dominion Iron & Steel Co., Ltd.,** Sydney, Cape Breton.
Str. Corunna.
Str. Nevada.
Str. Wade, J. H.

No. 102 **Dominion Transportation Co., Ltd., J. J. Noble, Supt.,** Sault Ste. Marie, Ont.
Str. Caribou.
Str. Manitou.

No. 103 **Donnelley Salvage & Wrecking Co., Ltd.,** Kingston, Ont.
Bge. Harriet D.
Bge. Aloha.

No. 103½ **Douglass, Geo.,** Detroit, Mich.
Str. Marshall, Maggie.

No. 104 **Doville Lake Sand & Gravel Co.,** Toledo, Ohio.
Str. Commerce.
Str. DoVille, R. E.

No. 105 **Doyle, Patrick,** Montreal, Canada.
Bge. Acadia.

No. 106 **Dunn Transportation Co., Theodore,** 2607 W. Jefferson Ave., Detroit, Mich.
Str. Green, C. H.
Bge. Francombe, J. A.
Bge. Kennedy, W. L.
Bge. Our Son.

No. 107 **Durocher, T. L.,** Detour, Mich.
Bge. Holland, Grace.

No. 108 **Edgewood Shipping Co., Ltd.,** Montreal, Que.
Schr. Edgewood.

No. 109 **Emery, W. L.,** Detroit, Mich.
Str. H. Houghton.

No. 110 **Emig, T.,** St. Clair, Mich.
Str. Fitzgerald, R. P.

No. 111 **Empire Coal Co., Ltd.,** Montreal, Canada.
Bge. Empire No. 1.

No. 112 **Erie Excursion Co.,** Erie, Pa.
Str. Webster, John.

No. 113 **Erie & Michigan Ry. & Nav. Co., E. E. Wilhelm, Mgr.,** 108 So. LaSalle St., Chicago, Ill.
Str. Greene, M. T.

No. 115 **Fagen, Capt. Joe**, Belleville, Ont.
Schr. Filer, Grace M.

No. 116 **Finn & Olsen Freighting Co.**, Marinette, Wis.
Str. Neff, S. O.
Schr. Stevens, J. H.
Schr. Joses.
Schr. Wisconsin.

No. 117 **Folger, H. S.**, Kingston, Ont.
Str. Pilgrim.

No. 118 **Foss Estate, E. B.**, Bay City, Mich.
Bge. Filmore, C. J.

No. 119 **Frazer-Brace & Co., Ltd.**, Montreal, Canada.
Str. Newona.

No. 120 **Garey, J. C.**, Saginaw, Mich.
Str. Ogemaw.

No. 121 **General Electric Co.**, Schenectady, N. Y.
Bge. Jessie.

No. 122 **General Transit Co., C. W. Bryson, Mgr.**, Leader-News Bldg., Cleveland, Ohio.
Str. Maytham, Thomas.
Str. Mecosta.
Str. Oglebay, E. W.
Bge. Tyrone.

No. 123 **Gillen, Edward**, Racine, Wis.
Str. Rudolph, William.
Bge. Progress.

No. 124 **Genzel, John**, Wyandotte, Mich.
Str. Douglass.

No. 125 **Gillingham, J. H.**, Alpena, Mich.
Schr. Day, Eliza.

No. 126 **Gleason, Frederick D.**, 28 Campau Bldg., Detroit, Mich.
Str. Harlow.
Bge. Badger.

No. 127 **Gooderham, A. F.**, Toronto, Ont.
Str. Cleopatra.

No. 128 **Goodwin, Jas.**, Toronto, Ont.
Schr. Ada, Alice.

No. 129 **Goodrich Transit Co.**, Foot Michigan Ave., Chicago, Ill.
Str. Alabama.
Str. Arizona.
Str. Carolina.
Str. Christopher Columbus.
Str. Florida.
Str. Georgia.
Str. Indiana.

No. 130 **Graham & Morton Trans. Co.** 308 River St., Chicago, Ill.
Str. City of Benton Harbor.
Str. City of Grand Rapids.
Str. City of St. Joseph.

No. 131 **Gordan, D. A.**, Wallaceburg, Ont.
Bge. Casey, Lyman C.

No. 131½ **Grand Trunk-Milwaukee Car Ferry Co., W. R. Davidson, Gen'l Supt.**, Chicago, Ill.
Str. Grand Haven.
Str. Milwaukee.

No. 132 **Grand Trunk Railway System, R. Aiken, Supt. Ferries,** Detroit, Mich.
Str. Great Western.
Str. Huron.
Str. Landsdowne.

Wabash Railroad.
Str. Detroit.
Str. Transfer.
Str. Transport.

No. 134 **Great Lakes Steamship Co.**, Rockefeller Bldg., Cleveland, Ohio.
Str. Belgium.
Str. Couiby, Harry.
Str. Cowle, J. B.
Str. Denmark.

Str. Dunn, Jr., John.
Str. Durstin, J. F.
Str. Hubbard, Charles.
Str. Leonard, G. B.
Str. Nettleton, A. E.
Str. Norway.
Str. Nottingham, Wm.
Str. Smith, B. Lyman.
Str. Smith, H. W.
Str. Smith, L. C.
Str. Smith, M. C.
Str. Smith, W. L.
Str. Sweden.
Str. Thompson, Smith.
Str. Warner, C. M.
Str. Wilkinson, H. S.

No. 135 Great Lakes Towing Co., Cleveland, Ohio.
Str. Favorite.
Str. Landbo.

No. 136 Great Lakes Transit Corporation, Buffalo, N. Y.
Str. Allegheny.
Str. Boston.
Str. Buffalo.
Str. Chicago.
Str. Conemaugh.
Str. Cooke, D. W.
Str. Delaware.
Str. Duluth.
Str. Juniata.
Str. Milwaukee.
Str. Muncy.
Str. North Lake.
Str. North Sea.
Str. North Star.
Str. Octorora.
Str. Rochester.
Str. Superior.
Str. Tionesta.
Str. Troy.
Str. Underwood, F. D.
Str. Utica.
Str. Wissahickon.

No. 137 **Guertin, Alphonse,** Montreal, Que.
Str. Prefontaine.

No. 138 **Guertin, Joseph.** Montreal, Canada.
Bge. Harrison, Ben.

No. 139 **Guyon, Calixte,** Montreal, Que.
Str. Beauharnois.

No. 140 **Halgren, Emanuel,** Marinette, Wis.
Schr. Cook, Mary Ellen.

No. 141 **Hall Coal Co., Geo., of Canada, Ltd.,** 211 McGill St., Montreal, Canada.
Str. Compton.
Tug Florence.
Str. Follette, J. W.
Tug Hackett. H. J.
Tug Hackett, M. A.
Str. Ketchum, 2d, J. B.
Str. Lehigh.

Str. Mercur, Fred.
Str. Rhodes, R. R.
Str. Rock Ferry
Str. Senator Derbyshire.
Bge. A. D.
Bge. Cuba.
Bge. Ewen, F. D.
Bge. Gladys H.
Bge. Katie H.
Bge. Zapotec.

No. 142 **Hall Coal and Transportation Co., Inc., Geo.,** Ogdensburg, N. Y.
Str. Iselin, Adrian.
Str. Kendall, H. J.
Str. Liberty.
Str. McTier, A. D.
Str. Robinson, L. W.
Str. Rugee, John.
Bge. Mathews, Jennie.
Bge. Sherman, W. A.

No. 143 **Hammermill Paper Co.**, Erie, Pa.
Str. Harriet B.
Str. Jacob, C. W.

No. 144 **Hamilton Transportation Co.**, 2431 South Lincoln Ave., Chicago, Ill.
Str. Niko.
Str. Pahlow, Lewis.
Str. Sawyer, W. H.
Bge. Interlaken.
Bge. Norris, A. B.
Bge. Redfern, C. E.
Bge. Tuxberry, A. C.

No. 145 **Hanna & Co., M. A.**, Leader-News Bldg., Cleveland, Ohio.

Calumet Transportation Co.
Str. Agassiz, R. L.
Str. Saunders, Jr., E. N.
Str. Shaw, Q. A.
Str. Turner, J. J.
Str. Uhrig, Edw. A.
Bge. Thompson, A. W.

Cambria Steamship Co.
Str. Morrell, D. J.
Str. Townsend, E. Y.

Donner Steamship Co.
Str. Black, H. F.

Eastern Steamship Co.
Str. Wood, Joseph.

Franklin Trans. Co.
Str. Fitch, W. F.
Bge. Maitland, Alex.

Johnstown Steamship Co.
Str. Midvale.
Str. Morris, Effingham B.
Str. Newbold, Arthur E.
Str. Replogle, J. Leonard.
Str. Rogers, Wm. A.
Str. Slick, Edwin E.

LaBelle Steamship Co.
Str. LaBelle.

Mahoning Steamship Co.
Str. Donner, W. H.
Str. Hanna, L. C.
Str. Stackhouse, Powell.

Producers S. S. Co.
Str. Amberg, Wm. A.
Str. Hill, Lewis W.
Str. Thompson, Carmi A.

Republic Transportation Co.
Str. Brown, W. L.
Str. Elphicke, Mary C.
Str. French, G. Watson.

Virginia Steamship Co.
Str. Crawford, W. D.

No. 146 **Harbor Commissioners**, Montreal, Canada.
Str. Aberdeen.

No. 147 **Harling, Thomas & Wm.**, Montreal, Canada.
Schr. Beechland.

No. 148 **Harrah, C. W.**, Detroit, Mich.
Bge. Bloom, Nelson.

No. 149 **Harrison & Sons Co., Ltd., John**, Owen Sound, Ont.
Str. Harrison.

No. 150 **Hart Transportation Co.**, Sturgeon Bay, Wis.
Str. Sailor Boy.
Str. Thistle.

No. 151 **Hettler Lumber Co., Herman H.**, 2601 Elston Ave., Chicago, Ill.
Str. Christie, T. S.
Str. Hettler, H. H.

No. 152 **Hickley, John**, Sault Ste. Marie, Mich.
Str. Minnie M.

No. 153 **Hill Steamboat Line**, Kenosha, Wis.
Str. City of Marquette.
Str. Charles McVea.

No. 154 **Hinkley, A. R.**, Oswego, N. Y.
Str. Phelps, M. G.

No. 155 **Hinckley Cornwall Forwarding Co.**, Alexandria Bay, N. Y.
Str. Hinckley.
Str. Isabella, H.

No. 156 **Hogan, M. J.**, Pt. Colborne, Ont.
Str. Lakeside.

No. 157 **Holmes & Co.**, Ogdensburg, N. Y.
Str. Island Belle.

No. 158 **Holmes & Co., W. E.**, Insurance Exchange Bldg., Chicago, Ill.
Central Transportation Co.
Str. Mueller.
Bge. Fryer, R. L.

No. 159 **Homegardner Sand Co.**, Sandusky, Ohio.
Str. Mary H.

No. 160 **Horn, Edward H., Mgr.**, 371 Hurlbut Ave., Detroit, Mich.
Str. Wolf, Wm. H.

No. 161 **Huntsville Lake of Bays & Lake Sincoe Nav. Co., Ltd.**, Huntsville, Ont.
Str. Iroquois.
Str. Joe.
Str. Ramona.

No. 162 **Hutchinson & Co., Mgrs., Leader-News Bldg.**, Cleveland, Ohio.
Inland Steamship Co.
Str. Block, Joseph.
Str. Leopold, N. F.
Pioneer Steamship Co.
Str. Amazon.
Str. Augustus, A. A.
Str. Australia.
Str. Billings, Frank.
Str. Butler, Jr., J. G.
Str. Hazard, F. R.
Str. Hutchinson, J. T.
Str. McKinney, Price.
Str. Mullen, Martin.
Str. Nye, H. B.
Str. Paine, W. A.

Str. Pierce, E. L.
Str. Polynesia.
Str. Stanton, John.
Str. Sullivan, J. J.
Str. Tomlinson, G. A.
Str. Walsh, J. P.

No. 163 Hydraulic Sand & Transit Co., 908 Chamber of Commerce Bldg., Chicago, Ill.
Str. Hydro.

No. 164 Illinois State Militia, Chicago, Ill.
Str. Commodore.

No. 165 Imperial Oil Co., Ltd., J. Wilkie, Marine Supt., Imperial Oil Bldg., Toronto, Ont.
Str. Imperial.
Str. Imperoyal.
Str. Iocoma.
Str. Impoco.
Str. Iocolite.
Str. Regmolite.
Str. Royalite.
Str. Sarnolite.
Bge. No. 41.

No. 166 Inter-Lake Auto Transportation Co., J. A. Page, Mgr., Toledo, Ohio.
Str. Huron.

No. 167 Interlake Sand & Gravel Co., Cleveland, Ohio.
Str. Boyce, I. J.

No. 168 International Transit Co., Sault Ste. Marie, Ont.
Str. Algoma.
Str. Bawating.

No. 169 Irondequoit Navigation Co., Irondequoit, N. Y.
Str. Glenn.

No. 170 Isabell, Thomas, Sturgeon Bay, Wis.
Schr. Nau. Libbie.

No. 171 **Jenkins, C. O., Mgr.,** Rockefeller Bldg., Cleveland, Ohio
Jenkins Steamship Co.
Str. Jenkins, C. O.
Str. Shaughnessy, Sir Thomas.
Str. Squire, F. B.

No. 172 **Jex, H. N.,** 1749 Summit Ave., Toledo, Ohio.
Str. Hazel.
Bge. Clint, D. K.
Bge. Judd, E. T.
Bge. Three Brothers.

No. 173 **Johnson, Frederick R.,** Pt. Colborne, Ont.
Str. Sarnor.

No. 174 **Kaine & Bird Transportation Co., Ltd.,** Quebec, Que.
Bge. Norway.

No. 175 **Keegan & Cousins,** Belleville, Ont.
Bge. Newland, J. B.

No. 176 **Keenan Brothers, Ltd.,** Owen Sound, Ont.
Schr. Magill, C. J.
Tug Keenan.

No. 177 **Keenan, Wm.,** Fenwick, Ont.
Bge. Scotia.

No. 178 **Kelly, Edward,** Wallaceburg, Ont.
Bge. Cyrenian.

No. 179 **Kelly Island Lime & Transportation Co.,** Sandusky, Ohio.
Str. Chisholm, Jr., Alva.
Str. Clinton.
Tug Fitzgerald, Richard.
Str. Kelly Island.
Str. Penobscot.
Str. Recor, E. P.
Bge. Kelly, Norman.
Bge. Pellatt, J. H.

No. 180 **Keystone Transportation Co., of Canada, Ltd., H. M. Norris, Traffic Mgr.,** Rockefeller Bldg., Cleveland, O; **John Waller, Supt., Power Bldg.,** Montreal, Que.
Str. Key Port.
Str. Keybell.

Str. Keynor.
Str. Keyvive.
Str. Key West.

No. 181 King, A. B., Tonawanda, N. Y.
Bge. King, A. B.

No. 182 Kinney, A. T., Mgr., Rockefeller Bldg., Cleveland, Ohio.
Kinney Steamship Co.
Str. Ashley, J. S.
Str. Ireland, R. L.
Str. Kinney, A. T.
Str. Upson, A. S.

No. 183 King Edward Starch Co., Ltd., Montreal, Canada.
Str. Duchess of York.

No. 184 Kirkwood Steamship Co., Montreal, Que.
Str. Glen Allen.

No. 185 Kittleson, B., Racine, Wis.
Schr. Taylor, J. V.

No. 186 Kreeton Co., J. L. LaBelle, Mgr., Johnswood, Drummond Island, Mich.
Str. Parks, O. E.
Str. Wilson, Mathew.
Bge. Knapp, F. M.
Bge. Troy.

No. 187 Kroos, Julius, Sheboygan, Wis.
Str. Chipman, Susie.

No. 188 Laidlaw Lumber Co., Ltd., Sarnia, Ont.
Str. Hall, Stephen C.
Bge. Brainard, K.

No. 189 Lake Erie Excursion Co., Foot Commercial St., Buffalo, N. Y.
Str. Americana.
Str. Canadiana.

No. 190 Lake Ontario & Bay of Quinte Steamboat Co., Ltd., Kingston, Ont.
Str. Caspian.
Str. North King.

No. 191 **Lake Nipissing Shipping & Trans. Co., Ltd.**, Toronto, Ont.
Str. Lewis, Elgin L.

No. 192 **Lake Sand Co., R. F. Smith, Mgr.**, 19 LaSalle St., Chicago, Ill.
Str. Hausler, M. G.

No. 193 **Lake Shore Sand & Gravel Co.**, Toronto, Ont.
Str. City of New York.

No. 194 **Lake Shore Steamship Co.**, P. O. Box 175, Milwaukee, Wis.
Str. Hennipin.

No. 195 **Lake Superior Co., Ltd.**, Sault Ste. Marie, Ont.
Str. Gray, G. R.

No. 195½ **Lawrence, Julius**, Marine City, Mich.
Bge. Gawn, Thomas.

No. 196 **LeBeau Wrecking Co.**, Foot Magnolia St., Toledo, Ohio.
Str. Sawyer, Philetus.
Tug LeBeau, Clarence.
Bge. Jones, C. B.

No. 197 **Lehigh Valley Transportation Co., M. D. Young, Supt.**, Buffalo, N. Y.
Str. Mauch Chunk.
Str. Wilkesbarre.

No. 198 **Levis Ferry Co., Ltd.**, Levis, Que.
Str. Colomb.

No. 199 **Lloyd, Walter S.**, Duluth, Minn.
Portage Lake Steamship Co.
Str. Plow Boy.

No. 200 **Lockhart, D. O.**, Sandusky, Ohio.
Str. Wente, R. C.
Str. Anna Laura.

No. 201 **Lomer, Adolf**, Montreal, Que.
Str. Armenia.

No. 202 **Maid of the Mist Steamboat Co., Ltd.**, Niagara Falls, N. Y.
Str. Maid of the Midst.

No. 203 **Marquette & Bessemer Dock & Nav. Co., A. Leslie, Mgr.,** Walkerville, Ont.
Str. Marquette & Bessemer No. 1.
Str. Marquette & Bessemer No. 2.

No. 204 **McCullough, Wm.,** Port Huron, Mich.
Bge. Coates, L. B.

No. 205 **McGrory, Katie,** Prescott, Ont.
Bge. New Dominion.

No. 206 **McKenzie, Edward,** Smith Falls, Ont.
Str. Jeska.

No. 207 **McLean, Pierre,** LaPrairie, Que.
Str. St. Louis.

No. 208 **McLouth, Sidney C.,** Marine City, Mich.
Huron Transportation Co.
Str. Mitchell, Samuel.
River Transit Co.
Str. Hazard, W. A.
Str. McLouth, Pierce.
Str. Prentice, J. H.
Str. Scranton.
Str. Shores, Jr., E. A.
Bge. Genoa.
Bge. Mowatt, James.

No. 210 **McMillan, Hugh,** Toronto, Ont.
Str. Sowards.

No. 211 **McQueen Tug & Transit Co.,** Amherstburg, Ont.
Str. City of Dresdon.
Tug LeRoy Brooks.

No. 212 **McSherry, P. J.,** Toronto, Ont.
Str. Ongiara.

No. 213 **Marine Navigation Co., Ltd.,** Montreal, Canada.
Bge. Inverneill.
Bge. Inversnaid.

No. 214 **Mathews Steamship Co., Ltd.,** Board of Trade Bldg. Toronto, Ont.
Str. Clifton.

Str. Easton.
Str. Laketon.
Str. Malton.
Str. Riverton.
Str. Viking.
Str. Yorkton.

No. 215 **Merchants Transportation Co.**, Chicago, Ill.
Str. Kansas.
Str. Missouri.

No. 215½ **Miller, J. C.**, Owen Sound, Ont.
Bge. Corisande.

No. 216 **Milwaukee Railway & Elec. Light Co., Milwaukee, Wis.**
Bge. Butman, Myron.
Bge. Carpenter, A. A.

No. 217 **Miller & Goldenberg**, La Presse Bldg., Montreal, Que.
Str. Marshall, Samuel.

No. 218 **Milwaukee Sand & Gravel Co.**, 779 N. Water St., Milwaukee, Wis.
Str. Ellen.

No. 219 **Milwaukee Western Fuel Co.**, Milwaukee, Wis.
Bge. Transfer.
Bge. Transport.

No. 220 **Misner, Robert S.**, Sault Ste. Marie, Ont.
Str. Langell, Simon.
Str. Overland.

No. 221 **Minor, C. J.**, Sandusky, Ohio.
Bge. Keith, Ida.

No. 222 **Mitchell, John**, Rockefeller Bldg., Cleveland, Ohio.
Buffalo Steamship Co.
Str. Agnew, W. C.
Str. Clement, S. M.
Str. Goodyear, Frank H.
Str. Kennedy, Hugh.

No. 223 **Montreal Lighterage Co., Ltd.**, Montreal, Canada.
Bge. Ark.

No. 224 Montreal Transportation Co., Ltd., H. N. McMaster, Marine Supt, 286 St. James St., Montreal, Que.

Str. Advance.
Str. Arabian.
Str. Atikoken.
Str. Cataract.
Str. Glenmount.
Str. India.
Str. Joyland.
Str. McVittie, A.
Str. Manola.
Str. Nicaragua.
Str. Oatland.
Str. Simla.
Str. Stormount.
Str. Valcartier.
Str. Vinmount.
Str. Westmount.
Str. Westerian.
Str. Windsor.
Tug Alert.
Tug Bronson, H. F.
Tug Escort.
Tug Hall, Mary P.
Tug Thomson, D. G.
Tug Weaver, R. G. A.
Bge. Bacon, M. S.
Bge. Brighton.
Bge. Cobourg.
Bge. Dakota.
Bge. Davie, G. T.
Bge. Dorchester.
Bge. Dunmore.
Bge. Ethel.
Bge. Gaskin, John.
Bge. Godfrey, G.
Bge. Hamilton.
Bge. Hilda.
Bge. Mamie.
Bge. Montreal.
Bge. Nadine.
Bge. Quebec.
Bge. Thrush.

Bge. Thunder Bay.
Bge. Ungava.

No. 225 Montreal & Cornwall Nav. Co., Ltd., Cornwall, Ont.
Str. Brittanic.
Str. Emerald.
Str. Filgate.

No. 226 Morgan Co., John C., Traverse City, Mich.
Str. Wilson, Anna C.
Str. Mary Ethel.

No. 227 Morton Salt Co., R. K. Warren, Supt., Railway Exchange Bldg., Chicago, Ill.
Str. Marion.
Str. Oades, John.
Bge. Aurora.

No. 228 Mullen Coal Co., Amherstburg, Ont.
Str. Alaska.
Str. Otis, John.
Bge. Tilden, S. J.

No. 229 Murphy, John E., Chicago, Ill.
Str. Bon Ami.

No. 230 Muskoka Lakes Nav. & Hotel Co., Ltd., Toronto, Ont.
Str. Auger, Antoine.
Str. Charlie M.
Str. Islander.
Str. Nipissing.
Str. Oriole.
Str. Sagamo.

No. 231 National Transit Co., Escanaba, Mich.
Str. Buckley, Edw.
Bge. Halstead.

No. 232 Neff, Charles S., 1598 Lake Drive, Milwaukee, Wis.
Str. Kalkaska.
Str. Venezuela.
Bge. Liberty.

No. 233 Nesbit, J. S., Sarnia, Ont.
Str. Canada.

No. 234 Nessen Lumber Co., J. O., Peoples Gas Bldg., Chicago, Ill.
Nessen Transportation Co.
Str. Horn, Charles.
Str. Nessen, N. J.

No. 235 New Ontario Trans. Co., Ltd., Pt. Arthur, Ont.
Str. O'Brien, M. J.

No. 236 Niagara Navigation Co., Ltd., Toronto, Ont.
Str. Cayuga.
Str. Chippewa.
Str. Corona.
Str. Macassa.
Str. Modjeska.
Str. Turbinia.

No. 237 Niagara, St. Catherines & Toronto Nav. Co., Ltd., E. W. Olmer, Gen'l Supt., St. Catherines, Ont.
Str. Dalhousie City.

No. 238 Nicholson Transit Co., Capt. Wm. Nicholson, Mgr., Campau Bldg., Detroit, Mich.
Str. Fellowcraft.
Str. Roumania.

No. 239 Nipigon Transit Co., W. J. Crosby, Mgr., Pt. Huron, Mich.
Str. Ford, J. C.

No. 240 Normoyle, Michael, Montreal, Que.
Str. Bain, Jesse.

No. 241 North American Bent Chair Co., Owen Sound, Ont.
Str. Michipicoten.

No. 242 North Bay & French River Trans. Co., Ltd., North Bay Ont.
Str. Northern Belle.

No. 243 North Shore Transit Co., W. J. Crosby, Mgr., Pt. Huron, Mich.
Bge. Owen, Geo. B.

No. 244 O'Connor Steamboat & Hotel Co., Ltd., Toronto, Ont.
Str. Belle of Temsgani.

Str. Chance.
Str. Marie.

No. 245 **O'Hagen, John J.**, 144 Grove St., Tonawanda, N. Y.
Twin City Transportation Co.
Str. Arizona.
Str. Buel, F. R.

No. 246 **Oakes, Herbert K., Mgr.**, Rockefeller Bldg., Cleveland, Ohio.
Beaver Steamship Co.
Str. Oakes, Herbert K.
Str. Utley, E. H.
Franklin Steamship Co.
Str. Berry, B. F.
Str. Earling, E. J.
Str. Ford, Emory L.

No. 247 **Ogdensburg S. S. Co.**, Odgensburg, N. Y.
Str. Columbia.

No. 248 **Oliver, James**, Kingston, Ont.
Bge. Andrews, A. L.

No. 249 **Ontario Car Ferry Co., Ltd., W. H. Smith, Mgr.**, 710 Canadian Express Bldg., Montreal, Can.
Str. Ontario No. 1.
Str. Ontario No. 2.

No. 250 **Ontario Gravel Freighting Co.**, Windsor, Ont.
Bge. Harsen.

No. 251 **Ontario Trading Co.**, Ogdensburg, N. Y.
Str. Pentland.

No. 252 **Ontario Transportation & Pulp Co., Ltd.**, Thorald, Ont.
Str. Boyce, M. H.
Str. Linden.

No. 253 **Ottawa Transportation Co., Ltd.**, Ottawa, Ont.
Str. Hall.
Str. Scotchman.
Bge. Albion.
Bge. Blackburn, R. L.
Str. Bremner, E. R.

Bge. Brunette.
Bge. Booth, J. R.
Bge. Burstall, J.
Bge. Cox, R. M.
Bge. Fitch Edson.
Bge. Iona.
Bge. Jumbo.
Bge. Murill.
Bge. Redfern, J. H.
Bge. Robertson, J.
Bge. Thurso.
Bge. Todd, J. W.
Bge. Waters, P.
Bge. Whelan, P.

No. 254 **Paisley S. S. Co., Cleveland-Cliffs Iron Co., Mgrs.,** Rockefeller Bldg., Cleveland, Ohio.
Str. Central West.
Str. Panay.
Str. Paisley, Robert J.
Str. Schneider, Cletus.
Str. Wesee.

Morrow Steamship Co.
Str. Luzon.
Bge. Hartnell, G. E.

No. 255 **Patterson, J. T.,** Kingston, Ont.
Schr. St. Louis.

No. 256 **Patterson, Norman M.,** Ft. William, Ont.
Str. Van Allen, D. R.

No. 257 **Peacock, J. H.,** Port Hope, Ont.
Bge. Arthur.

No. 258 **Pelee Island Sand & Gravel Co.,** 1800 Scranton Road, Cleveland, Ohio.
Str. Stafford, W. R.

No. 259 **Pelee & Lake Erie Nav. Co., Ltd.,** Pelee Island, Ont.
Str. Clarke, Alfred.

No. 260 **Pembroke Trans. Co.,** Pembroke, Ont.
Str. Olsean.

No. 261 **Peninsular Steamboat Co.**, Sandusky, Ohio.
Str. Olcott.

No. 262 **Peninsula Tug & Towing Co., Ltd.**, Wiarton, Ont.
Bge. Jackson, G. K.
Bge. Sands, Isabella.
Tug Crawford.

No. 263 **Pennsylvania & Ontario Trans. Co.**, Ashtabula Harbor, O.
Str. Ashtabula.

No. 264 **Pere Marquette Line Steamers, Gus Kitizinger, Mgr.**, Manistee, Mich.
Str. Pere Marquette No. 3.
Str. Pere Marquette No. 4.
Str. Pere Marquette No. 6.
Str. Pere Marquette No. 8.

No. 265 **Pere Marquette S. S. Co., W. L. Mercereau, Mgr.**, Ludington, Mich.
Str. International.
Str. Pere Marquette.
Str. Pere Marquette No. 14.
Str. Pere Marquette No. 17.
Str. Pere Marquette No. 18.
Str. Pere Marquette No. 19.
Str. Pere Marquette No. 20.

No. 266 **Peterson & Collinge, Lake & St. Lawrence Transit Co.**, 840 Rockefeller Bldg., Cleveland, Ohio.
Str. Lakeport.
Str. Lakewood.
Bge. Richland · Daisy.

No. 267 **Pickands-Mather & Co., Mgrs.**, Western Reserve Bldg., Cleveland, Ohio.
Interlake Steamship Co.
Str. Adriatic.
Str. Arcturus.
Str. Argus.
Str. Calumet.
Str. Campbell, J. A.
Str. Canopus.
Str. Cepheus.

Str. Cetus.
Str. Clarke, E. A. S.
Str. Corvus.
Str. Crete.
Str. Cygnus.
Str. Dalton, H. G.
Str. Davock, W. B.
Str. Elba.
Str. Hemlock.
Str. Hoyt, J. H.
Str. Hydrus.
Str. Indus.
Str. Jones, Harry R.
Str. Jupiter.
Str. Lagonda.
Str. Lupus.
Str. McCullogh, Jr., C. H.
Str. Mars.
Str. Mather, Samuel.
Str. Mills, D. O.
Str. Morse, J. C.
Str. Neptune.
Str. Odanah.
Str. Pathfinder.
Str. Pegasus.
Str. Perseus.
Str. Regulus.
Str. Reed, J. H.
Str. Robinson, C. S.
Str. Saturn.
Str. Sellwood, Joseph.
Str. Sherwin, John.
Str. Sirius.
Str. Stone, Amasa.
Str. Taurus.
Str. Taylor, Moses.
Str. Uranus.
Str. Vega.
Str. Venus.
Str. Verona.
Str. Victory.
Str. Wallace, J. C.
Str. Wolvin, A. B.

Bge. Constitution.
Bge. Sagamore.

No. 268 Pittsburg Steamship Co., Rockefeller Bldg., Cleveland, Ohio.

Str. Baker, G. F.
Str. Bessemer, Sir Henry.
Str. Black, C. A.
Str. Buffington, E. J
Str. Bunsen. R. W. E.
Str. Clemson, D. M.
Str. Cole, T. F.
Str. Collins, E. C.
Str. Coralia.
Str. Corey, W. E.
Str. Cornell.
Str. Cort, Henry.
Str. Crawford, G. G.
Str. Crescent City.
Str. Dickson, W. B.
Str. Dinkey, A. C.
Str. Eads, J. B.
Str. Edenborn, Wm.
Str. Ellwood, I. L.
Str. Empire City.
Str. Ericsson, John.
Str. Fairbairn, Sir Wm.
Str. Farrell, J. A.
Str. Filbert, W. J.
Str. Frick, H. C.
Str. Fulton, Robt.
Str. Garey, E. H.
Str. Gates, J. W.
Str. Harvard.
Str. Harvey, A. F.
Str. Hill. J. J.
Str. Houghton, D.
Str. House, F. E.
Str. Kerr, D. G.
Str. Linn, W. R.
Str. Lynch, Thomas.
Str. McDougall, Alex.
Str. McGonagle, W. A.

Str. McLean, J. H.
Str. Malietoa.
Str. Maricopa.
Str. Mariposa.
Str. Maritana.
Str. Mataafa.
Str. Mather, Samuel.
Str. Maunaloa.
Str. Mitchell, Penticost.
Str. Morgan, J. P.
Str. Morgan, Jr., J. P.
Str. Morse, S. F. B.
Str. Murphy, S. J.
Str. Neilson, J. B.
Str. Niagara Frontier.
Str. Olcott, W. J.
Str. Palmer, W. P.
Str. Pargny, E. W.
Str. Perkins, G. W.
Str. Phipps, Henry.
Str. Poe, Gen. O. M.
Str. Princeton.
Str. Queen City.
Str. Ream, N. B.
Str. Rensselaer.
Str. Richardson, R. R.
Str. Roberts, Jr., P.
Str. Rockefeller, F.
Str. Rogers, H. H.
Str. Schiller, W. B.
Str. Shaw, H. L.
Str. Shiras, McG.
Str. Siemans, Sir Wm.
Str. Stephenson, Geo.
Str. Superior City.
Str. Trimble, Richard.
Str. Watt, James.
Str. Wiedner, P. A. B.
Str. Williams, Homer D
Str. Zeising, August.
Str. Zenith City.
Bge. Bell, Sir I. L.
Bge. Bryn Mawr,

Bge. Carrington.
Bge. Corliss, G. H.
Bge. Fritz, John.
Bge. Holley, Alex.
Bge. Jenny, W. LeB.
Bge. Krupp, Alfred.
Bge. Magna.
Bge. Maia.
Bge. Maida.
Bge. Manda.
Bge. Manila.
Bge. Marcia.
Bge. Marsala.
Bge. Martha.
Bge. Nasymith, James.
Bge. Roebling, J. A.
Bge. Smeaton, John.
Bge. Thomas, S. G.
Bge. 137.

No. 269 Playfair, James, Mgr., Midland, Ont.
Great Lakes Trans. Co., Ltd.
Str. Glenbrae.
Str. Glencadam.
Str. Glencairon.
Str. Glenfinnan.
Str. Glenisla.
Str. Glenlevit.
Str. Glenorchy.
Str. Glenshee.
Str. Glenstriven.
Str. Glenyon.

No. 270 Point Ann Quarries, Ltd., McKinnon Bldg., Toronto, Ont.
Str. Lake Michigan.
Str. Rolph, John.
Tug Gilbert.
Bge. Dobbins, D. P.
Bge. Minch, Sophia.
Bge. Moran, D.
Bge. Muir, A.

No. 271 **Potter-Teare Transit Co.**, Carter Road S. W., Cleveland, Ohio.
Str. McGregor, M. A.

No. 272 **Pringle Barge Line Co., R. C. Pringle, Mgr.**, Rockefeller Bldg., Cleveland, Ohio.
Tug Pringle, Robt. C.
Tug Pringle, W. R.
Bge. Barlum, J. J.
Bge. Chattanooga.
Bge. Eddy, J. F.
Bge. Golden Age.
Bge. Iron Cliff.
Bge. Mingo.

No. 273 **Port Huron & Sarnia Ferry Co.**, Port Huron, Mich.
Str. Beard, James.
Str. City of Cheboygan.
Str. Conger, O. D.
Str. Dormer, Grace.
Str. Hiawatha.

No. 274 **Prindiville & Sons, John**, 208 So. La Salle St., Chicago, Ill.
Str. Foster, Parks.

No. 275 **Quebec & Port Levis Ferry Co., Ltd.**, Quebec, Que.
Str. Shaw, Charles H.
Str. Polaris.

No. 276 **Reed Towing & Wrecking Co., Ltd.**, Sarnia, Ont.
Tug Smith.

No. 277 **Reid Towing & Wrecking Co.**, Pt. Huron, Mich.
Str. Manistique.
Str. Pawnee.
Bge. Edwards, J. R.
Bge. Orton, M. E.

No. 278 **Reiss Steamship Co. of Ohio**, Reiss Bldg., Sheboygan, Wis.
Str. Byers, A. M.
Str. Reiss, Clemens A.
Str. Reiss, John P.
Str. Reiss, Otto M.
Str. Reiss, Peter.

Str. Reiss, Richard J.
Str. Reiss, Wm. A.

No. 279 **Reynolds, J. E.**, 514 Ontario St., Port Huron, Mich.
Str. Huron City.

No. 280 **Richardson Co., W. C., John T. Kelley, Mgr.**, Leader-News Bldg., Cleveland, Ohio.
Bristol Transit Co.
Str. Colonel.
Str. Senator.
Castle Transit Co.
Str. Goulder, Harvey D.
Fort Henry Transit Co.
Str. Richardson, W. C.
Hanna Transit Co.
Str. Hanna, Jr., H. M.
Hubbard Steamship Co.
Str. Hubbard, C. Russell.
Mentor Transit Co.
Str. Uhrig, Alex B.
Miller Transit Co.
Str. Miller, L. B.
Montreal Transit Co.
Str. Livingstone, Wm.
Norton Transit Co.
Str. Norton, D. Z.
Ottawa Transit Co
Str. Stifel, W. F.
Yosemite Transit Co.
Str. Yosemite.

No. 281 **Richland Steamship Co.**, Rockefeller Bldg., Cleveland, O.
Str. Richland Star.
Str. Richland Queen.

No. 282 **Rideau Lakes Nav. Co., Ltd.**, Kingston, Ont.
Str. Rideau King.
Str. Rideau Queen.

No. 282½ **River Rouge Sand & Gravel Co.**, Detroit, Mich.
Str. Powell, L. G.

No. 283 **Robineau, A.**, 828 St. Hurbert St., Montreal, Canada.
Str. Morley, W. B.

No. 284 Roe Brothers, Harbor Springs, Mich.
Str. Columbia.

No. 285 Ross, Charles, Pt. Maitland, Ont.
Str. City of Ladysmith.

No. 286 Saginaw Bay Trans. Co., Cleveland, Ohio.
Bge. Bottsford, Rhoda.

No. 287 Sands, Salt & Lumber Co., Louis, Manistee, Mich.
Str. Wotan.

No. 288 Sanderson, Chas. J., Milwaukee, Wis.
Schr. Simpson, L. A.

No. 289 Sanderson, M., Milwaukee, Wis.
Schr. Kewaunee.

No. 290 Sanford, James, Charlevoix, Mich.
Str. Stephenson, S. M.

No. 291 Sandusky & Islands Steamboat Co., Chas. N. Wells, Mgr., Sandusky, Ohio.
Str. Arrow.

No. 292 Schlosser, Win, Milwaukee, Wis.
Schr. Stafford.

No. 293 Schnorbach Greiling Co., Muskegon, Mich.
Str. Third Michigan.

No. 294 Scott, William, Wallaceburg, Ont.
Str. Brittain, R. C.

No. 295 Sellwood, R. M., Mgr., Sellwood Bldg., Duluth, Minn.
Masaba Steamship Co.
Str. Morrow, Joe S.

No. 296 Sharp, W. H., Bay City, Mich.
Str. Donaldson, J. P.
Bge. Dayton.
Bge. Wright, A. W.

No. 296½ Shaw, M. J., Buffalo, N. Y.
Str. Chicora.

No. 297 **Shaw, Howard L., Mgr.,** Bay City, Mich.
Lake Transit Co.
Str. City of Bangor.
Str. Penobscot.

No. 298 **Shenango Steamship Co., Rockefeller Bldg.,** Cleveland, Ohio.
Shenango Steamship Co.
Str. Snyder, W. P.
Str. Wilpen.
Shenango S. S. & Trans. Co.
Str. Shenango.
Str. Schoonmacher, Colonel J. M.
Str. Snyder, Jr., W. P.

No. 299 **Silver Islet Nav. Co., Ltd.,** Silver Islet, Ont.
Str. Forest City.

No. 300 **Sincinnes-McNaughton Line,** Montreal, Canada.
Bge. Witbeck, Henry.

No. 301 **Sims, T. C.,** Little Current, Ont.
Str. Bon Ami.

No. 302 **Snook, John R.,** Mt. Clemens, Mich.
Str. Atlantis.

No. 303 **Solman, Lawrence,** Toronto, Ont.
Str. Clark Brothers.
Str. Hanlan, John.
Str. Mazeppa.

No. 304 **Sowards, J. F.,** Kingston, Ont.
Str. Jex, H. N.

No. 305 **Spencer Bros.,** Napanee, Ont.
Schr. Davis, Lyman M.
Schr. Merrill, J. B.

No. 306 **Spencer, F. C.,** Saginaw, Mich.
Str. Miami.
Bge. Mueller.

No. 307 **Spokane Steamship Co.,** Port Huron, Mich.
Str. Billman, C. F.
Str. Spokane.

No. 308 St. Joe Island & Sault Line, Ltd., Sault Ste. Marie, Ont.
Str. City of Chatham.

No. 309 Standard Oil Co., Whiting, Ind.
Bge. "C".
Str. Cowan, Wm. P.
Str. Renown.

No. 311 St. Lawrence Coal & Freighting Co., Ogdensburg, N. Y.
Str. Carter, W. J.

No. 312 St. Lawrence Trans. Co., Toronto, Ont.
Str. Pennsylvania.

No. 313 St. Maurice Paper Co., Ltd., Montreal, Canada.
Bge. Wilson, Agnes.

No. 314 Steinbrenner, Henry, Mgr., Rockefeller Bldg., Cleveland, Ohio.
Kinsman Transit Co.
Str. Andrews, Mathew.
Str. Minch, Anna C.
Str. Minch, Phillip.
Str Steinbrenner, Henry.

No. 315 Stephenson Co., Trustees, Isaac-Wells, Delta County, Mich.
Str. Stephenson, I. W.

No. 316 Sturgeon Bay Stone & Trans. Co., Sawyer, Wis.
Str. Foster, I. N.
Bge. Corning, Ida.
Bge. Mott, Richard.
Bge. Oak Leaf.

No. 317 Sullivan & Co., D., Mgrs., 208 So. La Salle St., Chicago, Ill.
Str. Bixby, W. K.
Str. Dimmick, J. K.
Chicago Navigation Co.
Str. Dunham, J. S.
Str. Fitzgerald, W. E.
Christopher Steamship Co.
Str. Christopher.

Gartland Steamship Co.
Str. Wolfe, W. H.
Milwaukee-Western S. S. Co.
Str. Manchester.

No. 318 **Superior Sand & Gravel Co.**, 726 Dime Bank Bldg., Detroit, Mich.
Str. Osborne, F. C.

No. 319 **Surett, Walter S.**, 332 So. Michigan, Chicago, Ill.
Str. Michigan Central.

No. 320 **Swift Coal Co., Ltd., James**, Kingston, Ont.
Str. Chamberlin, C. W.
Bge. White & Friant.

No. 321 **Tobias, John C.**, Gobel Bldg., Detroit, Mich.
Str. Gladstone.

No. 322 **Trotter, F. J.**, Amherstburg, Ont.
Str. Mills, J. E.
Tug Trotter, M. E.

No. 323 **Tomlinson, G. A., Mgr.**, Rockefeller Bldg., Cleveland, Ohio.
Duluth Steamship Co.
Str. Philbin, D. M.
Str. Sonoma.
Str. Sultana.
Globe Steamship Co,
Str. Adams, Cuyler.
Str. Ball, F. C.
Str. Ball Brothers.
Inter-Ocean Steamship Co.
Str. Davidson, J. E.
Str. Sierra.
National Steamship Co.
Str. Hart, F. W.
Str. Watson, C. W.
Superior Steamship Co.
Str. Barnum, G. G.
Str. Sonora.
Str. Sinaloa.
Triton Steamship Co.
Str. Ranney, R. P.

Zenith Steamship Co.
Str. Hoover & Mason.

No. 324 Toronto Ferry Co., Toronto, Ont.
Str. Bluebell.
Str. Island Queen.
Str. Jasmine.
Str. Luella.
Str. Mayflower.
Str. Primrose.
Str. Trillium.

No. 325 Toronto, Hamilton & Buffalo Nav. Co., Hamilton, Ont.
Car Ferry Maitland No. 1.

No. 326 Tracey, H. E. N., Marine City, Mich.
Bge. Corry, Mike.

No. 327 Tri-State Steamship Co., M. S. Thompson, Mgr., 1111 Superior Viaduct, Cleveland, Ohio.
Str. Lakeland.

No. 328 United Fuel & Supply Co., Detroit, Mich.
Str. Brokate.
Str. Cadwell, C. W.
Str. Canisteo.
Str. Harvey, F. E.
Str. Heiden, Charles.
Str. Homer.
Str. Little, C. H.
Str. McKerchey, J. M.
Str. Mary.
Str. Sachem.
Bge. Whale.

No. 329 United States & Dominion Trans. Co., 205 N. Michigan Ave., Chicago, Ill.
Str. America.

No. 330 United States Lighthouse Service, Great Lakes District, Milwaukee, Wis., Detroit, Mich., Buffalo, N. Y.
Str. Amaranth.
Str. Aspen.
Str. Clover.

Str. Crocus.
Str. Hyacinth.
Str. Marigold.
Str. Sumac.

No. 331 **Upper Ottawa Improvement Co., Ltd.**, Ottawa, Ont.
Str. Alexandra.
Str. Castor.
Str. Fraser, Alexander.
Str. Frontenac.
Str. Greene, G. B.
Str. Hamilton.
Str. Hercules.
Str. Potter 2d, G. B.
Str. Pollux.
Str. Powell, C. B.
Str. Wambis.

No. 332 **Van Dusen, T. L.**, Picton, Ont.
Schr. Calkins, Bertie.
Schr. Mowatt, Oliver.

No. 333 **Victoria Nav. Co., Ltd.**, Ottawa, Que.
Str. Victoria.

No. 334 **Waffle, T. J. & W. J.**, Kingston, Ont.
Str. Waffle, T. J.

No. 335 **Walkerville & Detroit Ferry Co., J. Fitzsimmons, Supt.**, Foot Campau St., Detroit, Mich.
Str. Ariel.
Str. Essex.

No. 336 **Webster Steamship Co., Ltd.**, 83 Dalhousie St., Quebec, Que.
Str. Colen W.
Str. Eric W.
Str. Howard W.
Str. Richard W.
Str. Stuart W.

No. 337 **Weddell, R.**, Trenton, Ont.
Str. Sicken, M.

No. 338 **Western Steamship Corp.**, New York, N. Y.
Str. Oceanica.

No. 339 Warner, Dorr E., Williamson Bldg., Cleveland, Ohio.
Str. King, Geo.
Bge. Quale, Thomas.

No. 340 White-Gratwick & Mitchell S. S. Co., N. Tonawanda, N. Y.
Str. Mitchell, G. A.
Bge. Crane, J. L.
Bge. McAvoy, H. J.

No. 341 White Star Line, Detroit, Mich.
Str. City of Toledo.
Str. Greyhound.
Str. Owana.
Str. Tashmoo.
Str. Waketa.

No. 342 Williamson, F. Stuart, Receiver Central Railway of Canada, 103 Francis-Eriver St., Montreal, Que.
Str. Empress.

No. 343 Willoughby, W. J. N., Windsor, Ont.
Str. Fleetwood.

No. 344 Wills-Lee Co., Detroit, Mich.
Marysville Land Co.
Str. Normandie.

No. 345 Wilson, Joseph, Montreal, Canada.
Bge. Jackson.
Bge. Gray, John.

No. 346 Wilson Transit Co., A. W. Thomson, Mgr., 948 Rockefeller Bldg., Cleveland, Ohio.
Str. Garretson, General.
Str. Hebard, Charles S.
Str. McIntosh, H. P.
Str. Osborne, A. W.
Str. Rees, W. D.
Str. Robbins, S. H.
Str. Taplin, Frank E.
Str. Upson, J. E.
Str. Wilson, Capt. Thomas.

No. 347 Wilson Lumber & Box Co., P. O. Box 68, Tonawanda, N. Y.
Winnipeg, S. S. Co.
Str. Winnipeg.

No. 348 **Wilson-Patterson Co.**, Board of Trade, Montreal, Can.
Fairhaven Transp. & Coal Co., Ltd.
Str. Hall, H. B.
Lehigh Coal Co., Ltd.
Str. Canobie.

No. 349 **Windsor & Pelee Island Steamship Co., Ltd.**, Pelee Island, Ont.
Str. Pelee.

No. 350 **Wisconsin Dredge & Dock Co.**, Sheboygan, Wis.
Bge. Helvetia.

No. 351 **Wisconsin Steel Co.**, Chicago, Ill.
Str. The Harvester.

No. 352 **Wisconsin Transit Co.**, Milwaukee, Wis.
Str. Pilgrim.
Str. Puriton.
Str. Illinois.

No. 353 **Woodman, Wm. G.**, Wolfe Island, Ont.
Bge. Acacia.

No. 354 **Wyandotte Transportation Co.**, Wyandotte, Mich.
Str. Alpena.
Str. Conneaut.
Str. Huron.
Str. Wyandotte.

APPOINTMENTS OF MASTERS

Names of Captains and Their Boats. (*) Star Indicates Member.

Captains of Steamers—

*Anderhalt, L. P.—Chas. M. Warner.
Ackley, Geo. M.—Malietoa.
*Ashley, W. A.—R. R. Richardson.
*Ashby, H.—Bessmer.
*Allen, Sam'l C.—Jas. A. Farrell.
*Anderson, G. E.—Argus.
Allison, M. A.—Tug Margaret Hackett.
Allison, Wm.—Tug J. J. Hackett.
*Anderson, M.—E. Y. Townsend.
*Autterson, Jno. T.—Wm. A. Amberg.
*Autterson, J. W.—Richard J. Reiss.
*Allen, M. G.—Thomas Walter.
*Atkinson, George—Thos. Shaughnessy.
*Armstrong, Byron—Owana.
*Adams, W. G.—Greyhound.
*Anderson, C. A.—Michigan.
*Anderson, P. A.—Presque Isle.
Ames, A. L.—Geo. C. Markham.
Atkinson, C. A.—Michigan.
*Atkinson, C. L.—Huron.
*Albinson, C. R.—Laketon.
*Autterson. C. J.—C. W. Watson.
*Alexander, R.—Yorkton.
*Anderson, S. V.—John Rugee.

Bullock, A. E.—Kelly Island.
*Balfour, C. C.—Henry K. Oakes.
Bahle, Esten—Pere Marquette No. 20.
Blackloch, Frank—David Z. Norton.
*Bradshaw, J. L.—Alex B. Uhrig.
*Burns, John—Ziesing.
*Banker, George H.—Trimble.
*Burrows, A. W.—N. B. Ream.
Bowen, George—Widner.
*Burt, George—Corey.
*Brown, C. D.—Hill.
Bernard, E. F.—Murphy.
Boyce, C. S.—Shiras.
*Bolhouse, Geo.—Empire City.
Blessing, G.—Eads.
*Bouille, Pierre—Smith Thompson.
*Banker, Geo.—Richard Tremble.
Butts, W. C.—Geo. B. Leonard.
*Broderick, Ben.—Wilbur Smith.
*Brookheyser, Geo.—Florida.
*Beall, A. R.—Canopus.
*Brown, Nelson—J. N. Reed.
*Baird, J. D.—Elba.
Baker, R. A.—Lupus.
*Baird, L. M.—Lagonda.
Burke, Fred—Glenarchy.
Burke, Roy—Glenlivet.
Bousette, Frank—Great Western.
Burns, William—Clifford F. Moll.
*Brines, J. M.—Replogle.
*Bourgeois, E. M.—Regulus.
*Boyce, H. M.—John Oades.
Brock, George—L. U. Hill.
*Brines, Sam—W. F. Fitch.

Captains of Steamers—Cont.

Bennett, E.—W. G. Pollock.
Brechsieb, H. C.—W. R. Pringle.
*Berenstein, J.—Wotan.
*Buie, Daniel—Thos. Wilson.
*Baker, B. S.—Tashmoo.
*Brown, Chas. D.—W. K. Cowan.
Bostwick, M. E.—Andaste.
*Buchanan, James—C. G. Beitung.
Bjork, Oscar—City of St. Joseph.
Boynton, G. W.—Algomah.
Blanchard, Geo. W.—Dalhousie City.
*Barclay, J. C.—Hall.
*Brownell, J. A.—Hennipin.
Beaupre, Leo—Keybell.
Barrett, Albert—Key West.
*Bouille, David—J. P. Morgan.
Blair, E. B.—North Star.
Brown, Robert—Ontario.
Bickford, Ezra—Oliver H. Perry.
Baldwin, T. G.—Petoskey.
Blaine, Archibald—Pleasure.
Bennett, T. P.—Cletus Schneider.
*Brown, Hector—Scranton.
Baker, C. R.—Sonora.
*Benham, C. A.—Jno. Stanton.
*Benham, W. P.—J. J. Sullivan.
Boyle, R. H.—J. F. Taylor.
*Brown, J. A.—Valcartier.
*Bennett, Geo. J.—Venezuela.
Bowen, Geo.—P. A. B. Weidner.
Berg, Harold—Sailor Boy.

Carlton, E. E.—Chas. Hubbard.
Carney, Thos. J.—Hurlburt W. Smith.
Caughell, Charles. W.—B. Lyman Smith.
*Collins, Allen—Perkins.
*Culp, Hamilton—C. A. Black.
*Conlin, John—Queen City.
Conlon, L. B.—Mariposa.
*Call, Richard—Howard M. Hanna, Jr.
Carlsen, Carl—W. C. Richardson.
*Clarke, A. A.—Joseph Block.
*Cannally, James—Andrew S. Upson.
*Crooker, D. M.—Philip Minch.
*Craigie, A.—J. P. Reiss.
Crawford, John—Pere Marquette No. 18.
*Cavanagh, J. F.—Milwaukee.
*Conkey, Charles M.—Schiller.
*Canartney, M.—W. H. Sawyer.
*Colson, F. A.—C. W. French.
*Christiansen, Anton—Thos. Davidson.
*Christiansen, C. O. S.—Nielsen.
*Cartwright, P. M.—John Sherwin.
*Cowie, Andrew—Sirius.
*Cain, Richard A.—Thos. Barlum.
Campbell, John—Geo. H. Corless.
*Conlin, T. N.—Clemens A. Reiss.
*Clawson, Gus.—C. W. Jacobs.
Clauson, Theo.—Harriet B.
*Callum, A. C.—W. E. Fitzgerald.
Cummings, L. B.—J. S. Dunham.
*Cowles, W. J.—C. H. Bradley.
Cousins, W. H.—Angeline.
Carr, Wm.—Ariel.
*Cody, F. B.—Frank Billings.
Cottrell, James—Pierce McLouth.
Collins, O. D.—Penobscot.
Cunningham, Wm.—Schoolcraft.
Chamberlain, W. B.—Vulcan.
Coates, C. B.—Frank Woods.
Corson, S.—Major.

*Durker, Henry—Wilkes Barre.
*Driscoll, J. H.—Norway.

Captains of Steamers—Cont.

*Dunn, P.—Morse.
*Davis, F. W.—Maritana.
*Duddleson, J. Marshall—Fayette Brown.
*Duddleson, J. W.—M. A. Bradley.
*Dupuie, George—Cepheus.
*Denike, L. C.—City of Mackinac.
*Duncanson, D. J.—Robert R. Paisley.
*Detlefs, Emil—Jas. G. Butler, Jr.
Denstadt, John J.—Columbia.
Donner, M. K.—J. K. Denmark.
DeLand, W. A.—F. R. Hazard.
*Divish, Joe—Mueller.
*Drury, J. E.—Sonora.
*Doherty, John—Tionesta.
*Donahue, Joseph—Troy.
Dube, John—Waubic.
*Delaney, Geo.—Wissahicken.
*Davis, F. J.—Manitoba.

Elliott, D.—Gates.
*Endleman, J. G.—Linn.
*Ernest, Chas. W.—Senator.
*W. W. Eger—E. A. Uhrig.
Edwardson, Christ—Chas. Horn.
*Ehrhart, J. W.—R. L. Ireland.
Ellis, C. E.—J. S. Ashley.
*Elliott, Frank—J. C. Ford.
Endleman, S.—S. Mather.
*Emerson, S. K.—Calumet.
*Evanson, Arnold—Pegasus.
Elsey, D. B.—Taurus.
*Emig, Ed.—Pathfinder.
Elliott, D.—A. E. Cornelius.
Eble, John—Matthew Wilson.
*Edwards, J.—S. S. Curry.
Emig, Theo.—R. P. Fitzgerald.
*Emigh, H. W.—F. B. Squires.
*Evans, R. T.—H. H. Hettler.
*Elliott, F.—Victoria.

*Finnegan, H.—Siemens.
*Forbes, Alex.—A. E. Nettleton.
*Fox, Benson—Wilpen.
Fredrickson, Chas.—Ann Arbor No. 4.
*Fitch, Edward—E. J. Earling.
Forrest, G. F.—Mary A. McGregor.
*Fox, Arthur J.—Put-in-Bay.
*Francis, L. J.—H. P. McIntosh.
Franke, C. H.—J. E. Upson.
Forbes, A.—Francis Widlar.
*Fox, Chas.—Marquette.
*Frilay, H. W.—Amazon.
Ferguson, Alex.—Belgium.
*Flaherty, Jos.—C. F. Beilman, Jr.
Ferrell, P. C.—D. W. Cooke.
Foote, R. D.—Noconic.
Forrest, F. D.—Ontario No. 2.
*Ferguson, Robert E.—Ste. Clair.
Forbeck, A. P.—Tourist.
Farrour, Harry—Michigan.

Galton, Chas. B.—Frank H. Goodyear.
*Galton, John W.—Hugh Kennedy.
Gell, Howard—Wilbert L. Smith.
Gegenheimer, Chas.—Williams.
*Grant, C. J.—McGonagle.
Grant, Andrew—Crescent City.
*Gatfield, E. D.—W. A. Paine.
*Gentz, Otto A.—Wm. Livingston.
Gunderson, O. G.—Ann Arbor No. 6.
Gemmell, J. T.—Baker.
*Girardin, W. L.—Harry W. Croft.
*Grose, E. D.—City of Detroit No. 2.

Captains of Steamers—Cont.

*Goodrow, F. R.—Wm. H. Truesdale.
Gallagher, Jas.—Griffin.
Gunderson, F.—Ed. Buckley.
Groulx, E.—W. Colean.
Gunderson, Gus.—C. H. Green.
Gordon, W. F.—C. S. Hebard.
*Geel, Guy—Simon Langell.
Geel, Howard—W. L. Smith.
Gary, C. E.—Ogemaw.
*Glockle, M. B.—R. C. Pringle.
*Goodwin, J. F.—Martin Mullen.

Hern, L. J.—Normandie.
Hanson, B. H.—Ann Arbor No. 3.
*Hagan, Wm.—Leonard B. Miller.
*Hansen, A. C.—Gary.
Hunt, F. J.—McDougall.
Hearns, J. L.—Stephenson.
Huckle, G.—Zenith City.
Hettrick, M. E.—Clinton.
Harlotte, H. G.—Kerr.
*Hoag, W. S.—Dickson.
*Hyatt, J. A.—City of Alpena No. 2
*Heffernan, Jas.—Jacob T. Kopp.
*Herbert, Jas. G.—T. H. Wickwire.
*Hayes, Jas. E.—F. R. Buel.
*Heaton, Chas.—John Stanton.
*Hays, J. C.—J. P. Walsh.
Hayman, Geo.—W. Richards.
*Higgie, J.—L. Pallow.
Hudson, A. A.—Glenlyon.
*Hanson, H. C.—Uranus.
*Hanely, C. C.—L. C. Hana.
*Hibbard, C. C.—Alex Maitland.
Henson, J. H.—W. D. Crawford.
*Hartman, A. H.—J. J. Turner.
*Honner, G. W.—Transfer.
Harbarger, H. G.—F. L. Robbins.
Howard, H.—Frank Seither.
*Hansen, Hans—T. S. Christie.
Hamilton, Wm.—A. R. Colborn.
*Hinslea, H.—Sir Trevor Dawson.
Howard, Harry—R. W. England.
Heiser, Henry—Excelsior.
Howard, Frank—Garland.
Hess, J. E.—Mary H.
*Hoxie, A. K.—Pere Marquette No. 4.
*Heffernan, T.—John Rolph.
*Hansen, J. T.—W. H. Wolf.
*Huntoon, F. A.—Detroit.
Hayden, A. W.—Rochester.

*Ivers, John—H. Houghton.
*Iler, W. C.—Crawford.

Johnson, P. A.—F. W. Holt.
Jordon, M. C.—W. C. Franz.
Jack, J.—Fulton.
*Jones, Jno. F.—W. P. Snyder, Jr.
*Jagenow, W.—W. K. Bixby.
*Jaenke, H.—Kearsage.
Jewett, W. J.—John B. Ketchum No. 2.
*Johnson, R. E.—Venus.
Jackson, Jas.—J. A. Campbell.
Jenkyn, A. M.—Odanah.
*Johnston, Ed.—Vega.
*Jerome, W. B.—Joseph Woods.
*Johnston, Alex—P. Stackhouse.
Jackson, John—Lansdown.
Jacques, Demase—Brittania.
Jackman, Abner—J. J. Barlum.
*Johnson, Alfred—W. J. Carter.
Joyner, J.—Canadiana.
*Jones, W. C.—J. E. Davidson.

Captains of Steamers—Cont.

Jones, S. R.—Octorora.

*Kelley, H. T.—Collins.
*Kearns, C. J.—Empire City.
*Kelly, J. W.—H. Steinbrenner.
Kilby, W. H.—Aug. Ziesing.
Kennedy, John—Boston.
Kirkwood, W. J.—Steelton.
*Kendall, H. J.—C. H. Starke.

*Leonard, Roy M.—Penobscot.
LeBeau, C. E.—Philetus Sawyer.
Leath, E. C.—Superior.
*LaFramboise, J.—Clemson.
Lane, Geo. H.—M. Filbert.
Lohr, Wm.—Maunola.
*LeRoy, D.—McLean.
*Landon, Wm.—Peter Reiss.
*Lyons, R. J.—Horace S. Wilkinson.
*Lohr, J. M.—Thos. Maytham.
*Lowes, J. H.—E. A. S. Clarke.
*Lavely, L. J.—Hemlock.
*Lowe, J. B.—Mars.
Linton, W. E.—Glenfinnan.
Lavigne, W. A.—Glenshee.
Lively, H. R.—Hilton.
*Lightbody, John—Eastern States.
Low, Gordon—Q. A. Shaw.
*Landfair, B. M.—D. H. Morrell.
*Levis, George—W. A. Rogers.
Langell, Wm.—C. A. Thompson.
*Lawrence, E. J.—Otto M. Reiss.
Lawler, F. W.—O. E. Parks.
Lafay, Wm.—John Otis.
LaLonde, Oscar—Clemson.
*Lang, Julius—Renown.
*Lyons, S. A.—J. H. Sheadle.
*Logan, J. A.—Australia.
Lehan, J. J.—Cavenaugh.
Lavernge, Zeno—Doephin.
Laroche, D. N.—Easton.
Lefever, E.—Tug Florence.
Larson, John. A.—M. A. Reeb.
*Loveless, Fred—Mary H. Boyce.
*Lockhardt, D. O.—R. C. Wente.

*Munroe, A. J.—W. P. Snyder.
Martino, John—Islander.
*Montgomery, J. D.—Agana.
*Maddigan, Jas. A.—City of Bangor.
*Meeker, S. E.—Palmer.
Mosher, A. C.—J. W. Gates.
Mallory, F.—Poe.
Murray, John—Cornell.
*Milliken, Wm.—Mataafa.
Murphy, D.—Maunaloa.
Millen, R. A.—D. J. Monrell.
Munsen, J. A.—Fairbairn.
*Mackey, M. D.—Arizona.
*Mitchell, Dana—Wm. F. Stifel.
Moran, Joe—Yosemite.
Montague, C. Z.—John B. Cowle.
Meno, Frank L.—E. H. Utley.
Mahon, Jos. E.—Alaska.
*Moody, W. H.—Pargny.
*Matson, S. W.—Victory.
Murphy, D.—Havard.
*Morrison, J. N.—Cetus.
*Mohr, Chas. H.—E. W. Oglebay.
*Montgomery, Jas. W.—T. H. Wickwire, Jr.
*Montgomery, Jno. A.—W. T. Roberts.
*Montgomery, Wm. L.—John. L. Bolland.
*Madden, J. H.—J. S. Morrow.
*Mahon, A. J.—John J. Barlum.
Mills, Walter—Cabotta.
*Milne, John—

Captains of Steamers—Cont.

Mahon, M. H.—William A. Reiss.
MacKin, W. J.—Richland Queen.
*May, E.—John Donaldson.
Maloney, C. A.—J. W. Follette.
*Morrison, A.—Edwin N. Ohl.
Mallette, A.—Ottawan.
*Merckle, C. G.—City of Toledo.
*Murphy, H. A.—Ishpeming.
*Mooney, W. T.—Grand Island.
*Morrison, W. F.—Negaunee.
*Maynard, H. N.—Hyacinth.
*Morgan, M. F.—City of Grand Rapids.
*Moody, C. E.—Christopher Columbus.
*Martin, Ed. J.—Allegheny.
*Moore, Geo. W.—Alpena.
Mauk, A.—America.
*Meyers, C. F.—Ashtabula.
Martin, J.—C. W. Chamberlain.
Major, Wm. A.—O. D. Conger.
*Maddock, J. B.—Huron.
Mullen, John—Key Port.
*Montgomery, G. A.—Lasalle.
Matthews, Jos.—N. F. Leopold.
*Mallette, P. A.—Constitution.
Murphy, James—J. T. Hutchinson.
Mullon, J. P.—Midvale.
Martin, Mike—Pere Marquette No. 8.
*Morse, A. R.—D. M. Philbin.
Moles, W. J.—Riverton.
Murphy, Daniel—Utica.
*Mac Auley, George—Jas. J. Hoyt.
*McIntosh, M. G.—A. T. Kinney.
McCarty, Wm.—Chippewa.
McIntyre, A.—Homer Smith.
*McDonald, Alex. — Harvey D. Goulder.
*McGarrity, D. J.—Carolina.
McCallum, Geo. W.—Rogers.
McLeod, H. D.—Edenborn.
McLeod, D. W.—Black.
*McDonald, John—Watt.
*McLachlan, W. H.—Rockefeller.
*MacDonald, J. J.—Mather.
*McNeill, W. H.—Jupiter.
McIntosh, Angus—Neptune.
McElroy, W. P.—Olcott.
*McDougal, T. A.—J. R. Jones.
McRae, Kenneth—Adriatic.
*McKenzie, K.—Niko.
*McCann, Hugh—L. R. Davidson.
*McKay, D.—City of Cleveland.
*McGarry, George—P. L. Agassiz.
*McIntosh, J. L.—La Belle.
*McCarthy, P.—A. G. Bower.
McIntyre, John—Alberta.
McLeod, John—Americana.
McConnell, J.—Assiniboia.
McKay, Murdock—Athabasca.
*McLean, Wm. J.—C. D. Bradley.
*McDonald, A.—M. S. Bacon.
*McPherson, A.—Chicago.
*McDonald, W. B.—W. B. Davock.
*McKenzie, Alex—Delaware.
McCoy, N. J.—Manitou.
*McLeod, D.—Milwaukee.
McCraig, S.—Ontario No. 2.
*McCorkell, W. H.—Sultana.
MacLean, M. R.—W. F. White.
*McCormick, J. C.—Wyandotte.
McPree, W.—Kervatia.
McIntosh, J. E.—F. C. Osborne.
*McCallum, A. C.—H. H. Rogers.
McCarthy, A. F.—G. A. Richardson.
*McLeod, W. R.—Brazil.

*Nesbitt, W. K.—Colonel.
Nahrstedt, John—Dinkey.

Captains of Steamers—Cont.

*Noble, John—Lynch.
*Norvell, Walker—Transport.
Nutting, Ralph—North America.
*Neville, R.—B. F. Jones.
Norton, E. R.—General Garreston.
*Nelson, Olaf—Lewiston.
Niles, George—Luzon.
*Nelson, H. J.—P. P. Miller.
*Neal, J. S.—C. H. McCullough.
Nelssen, Severn—E. L. Pierce.
Nicholson, Wm.—Fellow Craft.
*Nelson, C. O.—Muncy.

*Ozier, H.—Cort.
*Ott, Frank H.—Shenango.
*O'Connor, R.—Hydrus.
*Oerthling, H., Jr.—Christopher.
*Ogden, B. F.—Crete.
Osburn, F. D.—Duluth.
Ohlemacher, Edw.—Mary Groh.
*Olson, J. K.—Sumac.

*Parsons, F. B.—J. F. Dunston.
Peters, C. E.—Coralia.
Parke, John—Hoese.
Patchett, A. T.—Shiras.
Park, John—F. C. House.
*Peterson, Martin S. — Harry Yates.
Pett, Jas. T.—Livingston.
Palmer, John—City of St. Ignace.
Price, George W.—Jos Dunn.
*Peltier, R. D.—E. B. Morris.
*Parsons, J. W.—Calcite.
*Pauls, Fred H.—Frank E. Kirby.
Paula, Bert—Langell Boys.
Post, D.—James McLaughlin.
*Perew, F. D.—Pioneer.
*Page, Geo. H.—Stadacona.
Patchett, A. T.—Geo. Stephenson.
*Peterson, P. A.—Corvius.
Peterson, J. N.—A. M. Gill.
*Piotter, C. L.—Hoover & Mason
Patterson, Jas. A.—Marquette & Bessemer No. 1.
*Powers, J. J.—Fred. Mercur.
Papineau, A.—Helen C.

*Quinlan, Wm.—Gogebic.

Regan, H. J.—Buffington.
Randolph, Geoge—Cole.
*Rolfson, J. N.—Phipps.
*Reece, George—Rensselear.
*Rice, Frank—Shaw.
*Roach, H. D.—Harvey.
*Rourke, John—Erricson.
Robertson, C.—Pere Marquette No. 19.
*Rattray, Chas.—J. P. Donaldson.
Reed, A. H.—J. C. Morse.
*Randall, Frank—C. S. Robinson.
*Reed, W. A.—Amasa Stone.
*Roubel, W. P.—Perseus.
*Recor, Ed.—Mecosta.
Ransom, W. H.—R. R. Rhodes.
Rogers, W. G.—Edwin L. Booth.
*Rand, L. A.—J. J. H. Brown.
Roach, M. B.—C. O. Jenkins.
*Robinson, J. W.—Sweden.
*Reid, Frank—Willis King.
*Robinson, F.—G. J. Grammar.
*Rinn, Wm.—Parks Foster.
*Rinn, J. B.—Robbins.
*Rydholm, C. O.—Munising.
*Rouvel, P. E.—Central West.
Randall, W. U.—Argo.
Robertson, W. P. —Chief Wawatam.

Captains of Steamers—Cont.

Roberts, B. J.—Chicora.
*Recor, Geo.—Cygnus.
*Rathbun, J. E.—Essex.
*Russell, Henry—Hecla.
*Reddner, E. E.—Indiana.
Russell, H. M.—Liberty.
Rankin, A. E.—A. C. Minch.
*Ritchie, W. S.—R. P. Ranney.
*Reid, W. C.—J. T. Hutchinson.

*Stalker, A. W.—Harry Coulby.
*Stanley, Edward—Monroe C. Smith.
*Smith, A. C.—Morgan, Jr.
Stover, W. E.—Frick.
*Selee, F. D.—Princeton.
*Sawyer, E. L.—Superior City.
Smith, J. A.—Bunsen.
*Stuffelbeam, G. E.—Alabama.
*Simmons, T. G.—C. Russel Hubbard.
*Sullivan, D. C.—Emory L. Ford.
Stewart, W. J.—Elva.
Shackett, J. M.—Harlow.
Stuffelbeam, John—Pere Marquette No. 17.
*Slade, J. J.—Col. J. M. Shoonmaker.
*Stewart, H. A.—Wm. C. Agnew.
*Stewart, H. W.—Matthew Andrew.
Stoll, A. J.—E. P. Recor.
Skeeggen, Olaf—W. D. Rees.
Sullivan, Edward—Midvale.
*Stewart, M. M.—E. E. Slick.
*Sturtevant, Fred—W. L. Brown.
*Sexsmith, S.—E. N. Saunders.
*Stone, L. W.—Dalton.
*Smith, S. H.—Moses Taylor.
Stewart, C. C.—C. C. Wallace.
*Stockdale, Roy—Indus.
*Simons, John—Arthur Orr.
Stewart, Gei.—A. W. Osborne.
*Saunders, T. H.—Harvey H. Brown.
*Stevenson, Wm.—Cuyler Adams.
Spaulding, H. W.—Zillah.
Swails, G.—Alexis Thompson.
Smith, Chris.—Wauketa.
Staker, Wm.—Homer Warren.
*Stevenson, Thomas—North Lake.
Stewart, J. A.—Peter White.
*Sullivan, T. D.—John F. Morrow.
*Scheible, H. J.—H. B. Nye.
Smith, E. C.—America.
Seelye, C. L.—A. A. Augustus.
*Slater, F. R.—Ball Bros.
*Stevenson, W. H.—Buffalo.
Sheldon, A. D.—R. Bottsford.
Secor, E. B.—A. S. Chisholm.
Smith, Wm.—Harvester.
Slattery, Thomas—Juniata.
Smith, Wm.—Keynor.
Smith, J. A.—A. F. Harvey.
Shorkey, W. W.—Sam'l Mitchell.
Stevenson, Hugh—Sinaloa.
Sheats, J. N.—Pelee.
*Strahan, L. F.—I. W. Stephenson.
Sanford, J.—S. M. Stephenson.
*Smith, J. H.—G. A. Tomlinson.

Tulledge, B. F.—Ann Arbor No. 5.
Tyrie, Harry—Arrow.
Traill, Thomas—Grand Haven.
*Tulian, G. D.—G. E. Newbold.
*Tower, John—A. B. Wolvin.
Tomilon, Fred—Polynesia.
*Tomlin, W. J.—Uranus.
Tulloch, Wm.—Rock Ferry.
Tindale, James—Glenisla.
*Taylor, Edward—South America.

Captains of Steamers—Cont.

Trim, Elmer—D. O. Mills.
*Talbot, A. J.—Roberts, Jr.
*Thorsen, Louis—L. L. Barth.
*Thayer, C. R.—Hydro.
Thompson, W. C.—J. H. Shrigley.
Treeblay, E.—W. Stuart.
Taylor, Guy—W. A. Hazard.
Thomas, E. M.—Hiawatha.
Toupin, J.—W. Marian.

*Utley, R. Z.—Saturn.

VanBuskirk, J.—Marquette & Bessemer No. 2.
VanDyke, W. H.—Pere Marquette.
*VanGorden, C.—J. H. Prentice.
VanPatten, E. C.—Price McKinney.

*Winkler, H.—A. W. Beyers.
*Walle, Martin—Stephen M. Clement.
*Williamson, P. L.—Niagara.
Williams, M. A.—S. Mather.
*Woodford, C. H.—Jos. Sellwood.
*Weeks, J. L.—Arcturus.
*Warner, W. E.—Houghton.
*Wendorf, H.—H. F. Black.
Witte, W.—G. W. French.
*Walper, H.—Mitchell.
*Wade, F. J.—Maricopa.
*Watts, Jas. B.—Lyman C. Smith.
*Walder, R. J.—Denmark.
*Willoughy, W. J.—Fleetwood.
*Wanvig, J. D.—W. H. Wolf.
*Wilman, D.—W. W. Brown.
*Weborg, Elmer—Manchester.
*West, F. A.—Wm. G. Mather.
*Watson, F. W.—Cadillac.
*Wilson, C. J., Jr.—Panay.
*Williams, Ed.—City of Benton Harbor.
*Warwick, Earnest—G. G. Barnum.
Wicthem, H. J.—G. A. Boeckling.
Waugh, Geo.—City of Cheboygan.
Wright, A. M.—Huronic.
Wood, F. E.—Kendall, H. J.
Wilkinson, R. B.—North Sea.
Wilkin, Clifford—Sapho.
Williams, Peter—Victoria.
*Warwick, Geo. A.—Sierra.
*Woodford, Roy—W. R. Stafford.

Young, Alex.—J. P. Ralph.
*Yates, W. H.—Conneaut.

ALPHABETICAL LIST OF OWNERS OR MANAGERS

Captains of Steamers—

Argus—G. E. Anderson.
Amberg, W. A.—Jno. T. Autterson.
Ann Arbor No. 4—Chas. Frederickson.
Ann Arbor No. 3—H. B. Hanson.
Ann Arbor No. 6—O. G. Gunderson.
Arizona—M. D. Mackey.
Agana—J. D. Montgomery.
Alaska—Jos. E. Mahon.
Adriatic—Kenneth McRae.
Agassiz, P. L.—George McGarry.
Arcturus—J. L. Weeks.
Alabama—G. E. Stuffelbeam.
Ann Arbor No. 5—B. F. Tulledge.
Agnew, Wm. C.—Harvey A. Stewart.
Andrew, Matthew—H. W. Stewart.
Angeline—W. H. Cousins.
Andaste—M. E. Bostwick.
Adams, Cuyler—Wm. Stevenson.
Alberta—John McIntyre.
Americana—John McLeod.
Algomah—G. W. Boynton.
Allegheny—Ed. J. Martin.
Alpena—Geo. W. Moore.
Amazon—H. W. Frilay.
America—E. C. Smith.
America—A. Mauk.
Argo—W. U. Randall.
Ariel—Wm. Carr.
Arrow—Harry Tyrie.
Ashley, J. S.—Chas. S. Ellis.
Ashtabula—Chas. F. Meyers.
Assiniboia—J. McConnell.
Athabasca—Murdock McKay.
Boyce, Mary H.—Fred Loveless.
Black—D. W. McLeod.
Belgium—Alex. Ferguson.
Black, C. A.—Hamilton Culp.
Barlum, Thos.—Richard A. Cain.
Brown, Fayette—J. Marshall Duddleson.
Bradley, M. A.—John W. Duddleson.
Bunsen—J. A. Smith.
Baker—J. T. Gemmell.
Buell, F. R.—Jas. E. Hayes.
Brown, W. L.—Fred Sturtevant.
Bixby, W. K.—W. Jagenow.
Boland, J. J.—W. L. Montgomery.
Barlum, John J.—A. J. Mahon.
Brazil—W. R. McLeod.
Byers, A. M.—H. R. Winkler.
Benton Harbor, City of—Ed. Williams.
Black, H. F.—H. Wendorf.
Buffington—H. J. Regan.
Bessemer—H. Ashby.
Booth, Edwin L.—Wallace G. Rogers.
Brown, J. J. H.—L. A. Rand.
Brown, Harvey H.—Thomas H. Saunders.
Brower, A. G.—P. McCarthy.
Brown, W. W.—D. Wilman.
Bradley, C. H.—W. J. Cowles.
Breitung, C. G.—James Buchanan.
Ball Bros.—F. R. Slater.
Barnum, G. G.—Earnest Warwick.
Barth, L. L.—Louis Thorsen.
Bielman, C. F., Jr.—Jos. Flaherty.

Captains of Steamers—Cont.

Billings, Frank—F. B. Cody.
Block, Jos.—A. A. Clarke.
Boeckling, G. A.—H. J. Witchen.
Boston—John Kennedy.
Bradley, C. D.—Wm. J. McLean.
Brittania—Demase Jacques.
Buckley, Ed.—F. Gunderson.
Buffalo—W. H. Stevenson.
Butler, Jas. G., Jr.—Emil Detlefs.
Bacon, M. S.—A. McDonald.
Bangor, City of—James Madigan.
Barlum, J. J.—Abner Jackman.
Bottsford, R.—A. D. Sheldon.

Corey—George Burt.
Cowan, W. P.—C. D. Brown.
Corless, Geo. H.—John Campbell.
Canopus—A. R. Beall.
Chisholm, A. S., Jr.—Omar Collins.
Chisholm, A. S.—E. B. Secor.
Cepheus—George Dupuie.
Calumet—S. K. Emerson.
Cornelius, Adam E.—David Elliott.
Crescent City—Andrew Grant.
Craft, W. W.—W. L. Girardin.
Clinton—M. E. Hettrick.
Crawford, W. D.—J. R. Hansen.
Crawford, G. G.—W. C. Iler.
Campbell, J. A.—Jas. Jackson.
Clemson—J. LaFramboise.
Clemson—Oscar LaLonde.
Clarke, E. A. S.—J. H. Lowes.
Cowle, John B.—C. Z. Montague.
Constitution—P. A. Mallette.
Columbus, Christopher—C. E. Moody.
Craft, Fellow—Wm. Nicholson.
Cort—H. Ozier.
Cetus—J. N. Morrison.
Carolina—D. J. McGarrity.
City of Cleveland—D. McKay.
Colonel—W. K. Nesbitt.
Coralia—C. E. Peters.
Calcite—J. W. Parsons.
Cole, Thos. F.—Geo. Randolph.
Cygnus—Robert J. Recor.
Coulby, Harry—A. W. Stalker.
Christopher—H. Oerthling, Jr.
Curry, S. S.—J. Edwards.
Cadillac—F. W. Watson.
Central West—P. E. Rouvel.
Cabotta—Walter Mills.
Canadiana—J. Joyner.
Carter, W. J.—Alfred Johnson.
Chamberlain, C. W.—J. Martin.
Chicago—A. McPherson.
Chippewa—W. C. McCarty.
Chicora—B. J. Roberts.
Chief Wawatam—W. P. Robertson.
Christie, T. S.—Hans Hansen.
Cleveland, City of—E. Hayward.
City of Cheboygan—Geo. Waugh.
Clement, S. M.—Martin Walle.
Colborn, A. R.—Wm. Hamilton.
Colen, W.—E. Groulx.
Columbia—John J. Denstadt.
Cavenaugh—J. J. Lehan.
Conger, O. D.—Wm. A. Major.
Cornell—John Murray.
Conneaut—W. H. Yates.
Cooke, D. W.—F. C. Ferrell.
Claire—R. E. Ferguson.
Corvius—P. A. Peterson.
Crete—B. F. Ogden.

Davidson, Thomas—Anton Christansen.
Detroit, City of, No. 2—E. Grose.
Dimmick, J. K.—M. K. Donner.
Dickson, W. B.—W. S. Hoag.
Davidson, L. R.—Hugh McCann.

Captains of Steamers—Cont.

Dinkey, A. C.—John Nahrstedt.
Denmark—R. J. Walder.
Dunn, Jos.—George W. Price.
Dunston, J. F.—F. B. Parsons.
Donaldson, Jas. P.—Chas. Rattray.
Dalton, H. G.—L. W. Stone.
Dunham, J. S.—L. B. Cummings.
Dalhousie City—G. W. Blanchard.
Davidson, J. E.—W. C. Jones.
Doephin—Zeno Lavernge.
Dawson, Sir Trevor—H. Hinslea.
Davock, W. B.—W. B. McDonald.
Delaware—Alex. McKenzie.
Donaldson, J. A.—E. W. May.
Duluth—F. D. Osburn.

Erricson—John Rourke.
Eads—G. Blessing.
Elba—J. D. Baird.
Ellwood, I. L.—H. Clegg.
Earling, E. J.—Edward Fitch.
Empire City—Geo. Bolhouse.
Empire City—C. J. Kearns.
Edenborn—H. D. McLeod.
Elva—W. J. Stewart.
Eastern States—John Lightbody.
Easton—D. N. Laroche.
England, R. W.—Harry Howard.
Excelsior—Harry Heiser.

Farrell, James A.—S. C. Allen.
Fitch, W. F.—Sam Brines.
Florida—Geo. Brookheyser.
Ford, J. C.—Frank C. Elliott.
Franz, W. C.—M. C. Jordon.
Fulton—J. Jack.
Filbert, M.—Geo. H. Lange.
Follette, J. W.—C. A. Maloney.
Frick, H. C.—W. E. Stover.
Fleetwood—W. J. Willoughby.
Ford, Emory L.—D. C. Sullivan.
French, C. W.—F. A. Colson.
French, G. W.—W. Witte.
Fitzgerald, W. E.—A. C. Collum.
Florence, Tug—E. Lefever.

Glenarchy—Fred Burke.
Glenlivet—Roy Burke.
Goodyear—Frank H.—Chas. B. Galton.
Gary, E. N.—A. C. Hanson.
Glenlyon—A. A. Hudson.
Glenfinnan—W. A. Linton.
Glenshee—W. A. Lavigne.
Gates, J. W.—A. C. Moser.
Grand Rapids, City of—M. F. Morgan.
Goulder, Harvey D.—Alex. McDonald.
Grand Haven, C. F.—Thos. Traill.
Gates—D. Elliott.
Griffin—Jas. Gallagher.
Glenisla—James Tindale.
Great Western—Frank Bousette.
Grammar, G. J.—F. Robinson.
Garretson, Gen'l—E. R. Morton.
Greyhound—W. G. Adams.
Grand Island—W. T. Mooney.
Garland—Frank Howard.
Gill, A. M.—J. N. Peterson.
Gogebic—Wm. Quinlan.
Green, C. H.—Gus. Gunderson.
Groh, Mary—Ed. Ohlemacher.

Hackett, J. H.—Wm. Allison.
Hackett, M. A.—M. Allison.
Hackett, J. J., Tug—Wm. Allison.
Hill, J. J.—C. D. Brown.
Hill, L. U.—George Brock.
Hubbard, Chas.—E. E. Carlton

Captains of Steamers—Cont.

Hanna, Howard M., Jr.—Richard Call.
Harriet "B"—Theo. Clauson.
Horn, Chas.—Chris. Edwardson.
Houghton, H.—John Ivers.
Holt, F. W.—P. A. Johnson.
Hemlock—L. J. Lavely.
Hoyt—C. A. McAuley.
Hydrus—R. O'Connor.
House, F. E.—John Parke.
Harvey—H. D. Roach.
Harvey, A. F.—J. A. Smith.
Home Smith—A. McIntyre.
Hubbard, C. Russell—Thos. J. Simmons.
Houghton, D.—Wm. E. Warner.
Hyacinth—H. N. Maynard.
Hall—H. C. Barclay.
Harlow—J. M. Schackett.
Harvester—Wm. Smith.
Hazard, F. R.—W. A. Deland.
Hazard, W. A.—Guy H. Taylor.
Hebards, C. S.—W. F. Gordon.
Hecla—Henry Russell.
Helen C.—A. Papineau.
Hennipin—J. A. Brownell.
Hettler, H. H.—R. T. Evans.
Hiawatha—E. M. Thomas.
Hydro—C. R. Thayer.
Hilton—H. R. Lively.
Hoover & Mason—C. L. Piotter.
Huron—J. B. Maddock.
Huron—C. L. Atkinson.
Havard—D. Murphy.
Huronic—A. M. Wright.
Hutchinson, J. T.—James Murphy.
Hutchinson, J. T.—W. C. Reid.

Islander—John Martino.
Indiana—E. E. Redner.
Indus—Roy Stockdale.
Ireland, R. L.—E. W. Erhardt.
Ishpeming—H. A. Murphy.

Jupiter—W. H. McNeill.
Jones, J. R.—T. A. McDougal.
Jenkins, C. O.—M. B. Roach.
Juniata—Thomas Slattery.

Ketchum, John, No. 2—W. J. Jewett.
Kearsage—H. Jaenke.
Kerr, D. G.—H. G. Harbottle.
Kirby, Frank E.—Fred. H. Pauls.
Kelly Island—A. E. Bullock.
King, Willis—F. Reid.
Kotcher, C. W.—John Milne.
Kendall, H. J.—F. E. Wood.
Kervatia—W. McPree.
Keybell—Leo Beaupre.
Key Port—John Mallen.
Keynor—Wm. Smith.
Key West—Albert Barrett.

Linn—J. G. Endleman.
Leonard, Geo. B.—W. C. Butts.
Lagonda—L. M. Baird.
Lupus—R. A. Baker.
Livingston, Wm.—Otto A. Gentz.
Langsdowne—John Jackson.
LaSalle—G. A. Montgomery.
LaBelle—J. L. McIntosh.
Lynch, Thos.—John Noble.
Langell Boys—Bert. Paula.
Livingstone—James Pett.
Laughlin, James—D. M. Post.
Luzon—Geo. E. Niles.
Lewiston—Olaf Nelson.
Laketon—C. R. Albinson.
Langell, Simon—Guy Geel.
Leopold, N. F.—Jos. Matthews.
Liberty—H. M. Russell.

Captains of Steamers—Cont.

Malietoa—G. M. Ackley.
Murphy, S. J.—E. F. Bernard.
Minch, Phillip—D. M. Crooker.
Milwaukee, C. F.—J. F. Cavanaugh.
Maitland, Alex—C. C. Hibbard.
Major—Sam Corson.
Morse, S. F. B.—P. Dunn.
Maritana—F. W. Davis.
Mackinac, City of—L. C. DeNike.
Mather, Sam'l Small—J. Endleman.
Miller, Leonard B.—Wm. Hagan.
Mars—J. B. Lowe.
Mataafa—Wm. Millikin.
Maunaloa—D. Murphy.
Montrell, D. J.—B. M. Landfair.
Maytham, Thos.—J. M. Lohr.
Mecosta—Ed. Recor.
Morgan, J. P.—David Bouille.
Morgan, J. P., Jr.—A. C. Smith.
Midvale—J. P. Mullon.
Midvale—Edward Sullivan.
Mitchell, Samuel—W. W. Shorkey.
Mills, D. O.—Elmer Trimm.
Mather, S.—M. A. Williams.
Mitchell, P.—H. Walper.
Maricopa—F. J. Wade.
Mariposa—L. B. Conlon.
Moll, C. F.—Wm. Burns.
Manchester—Elmer Weborg.
Miller, P. P.—H. Nelson.
Mather—J. J. Macdonald.
Mather, W. G.—F. A. West.
Michigan—C. A. Atkinson.
Marquette—Chas. Fox.
Munising—C. O. Rydholm.
Morrow, J. S.—John H. Madden.
Manuola—Wm. Lohr.
Morrow, John F.—T. D. Sullivan.
Manitoba—F. J. Davis.
Manitou—W. J. McCoy.
Marian W.—J. Toupin.
Markhan, Geo. C.—A. L. Ames.
Marquette & Bessemer No. 1—James A. Patterson.
Marquette & Bessemer No. 2—J. VanBuskirk.
Mary H.—J. E. Hess.
Mercur, Fred—Jas. J. Powers.
Michigan—Harry Farrow.
Milwaukee—D. McLeod.
Minch, A. C.—A. E. Rankin.
Morse, J. C.—A. H. Reed.
Mueller—Joe Divish.
Mullen, Martin—J. F. Goodwin.
Muncy—Chas. Nelson.
Morris—R. D. Peltier.
McGongale—C. J. Grant.
McGregor, Mary A.—F. G. Forest.
McDougall—F. J. Hunt.
McIntosh, H. P.—L. J. Francis.
McCullough, C. H.—J. S. Neal.
McKinney, Price—E. C. VanPatten.
McLean—R. LeRoy.
McLouth, Pierce—James Cottrell.

Norton, David Z.—Frank Blackloch.
Nottingham, Wm.—James Coffey.
Norway—J. H. Driscoll.
Nettleton, A. E.—Alex. Forbes.
Normandie—L. J. Hern.
Neptune—Angus McIntosh.
Niko—K. McKenzie.
Newbold, G. E.—G. B. Tulian.
Niagara—Patrick Williamson.
North America—Ralph Nutting.
Nielsen—C. O. S. Christiansen.
Negaunee—W. F. Morrison.

Captains of Steamers—Cont.

Noronic—R. D. Foote.
North Lake—Thomas Stevenson.
North Sea—R. B. Wilkinson.
North Star—E. B. Blair.
Nye, H. B.—H. J. Scheible.

Oakes, Henry K.—C. C. Balfour.
Oades, John—H. M. Boyce.
Olcott—M. P. McElroy.
Odanah—A. M. Jenkyn.
Otis, John—Wm. Lafay.
Oglebay, E. W.—Chas. H. Mohr.
Orr, Arthur—John Simons.
Ohl, Edwin L.—A. Morrison.
Osborne, A. W.—G. Stewart.
Owana—Byron Armstrong.
Octorora—S. R. Jones.
Ogemaw—C. E. Gary.
Ontario—Robert Brown.
Ontario No. 1—S. McCraig.
Ontario No. 2—F. D. Forrest.
Osborne, F. C.—A. C. McCallumm.
Ottawan—A. Mallette.

Pere Marquette No. 20—Esten Bahle.
Perkins, G. W.—Allen Collins.
Pere Marquette No. 18—John Crawford.
Pegasus—Arnold Evanson.
Pathfinder—Ed. Emig.
Put-in-Bay—Arthur J. Fox.
Pahlow, Louis—John Higgie.
Parks, O. E.—F. W. Lawler.
Palmer, W. P.—S. E. Meeker.
Poe, O. M.—F. Mallory.
Parguy, E. W.—W. H. Moody.
Phipps, Henry—J. N. Rolfson.
Perseus—W. P. Rouvel.
Princeton—F. D. Sellee.
Pollock, W. G.—E. Bennett.
Presque Isle—P. A. Anderson.
Paisley, Robert R.—D. J. Duncanson.
Panay—C. H. Wilson, Jr.
Pioneer—F. D. Perew.
Pere Marquette—C. E. Roberston.
Paine, W. A.—E. D. Gatfield.
Pelee—J. N. Sheats.
Penobscot—Roy M. Leonard.
Penobscot—O. D. Collins.
Pere Marquette No. 4—A. K. Hoxie.
Pere Marquette No. 8—Mike Martin.
Pere Marquette—W. H. VanDyke.
Perry, Oliver H.—Ezra Brickford.
Petoskey—T. G. Baldwin.
Philbin, D. M.—A. R. Morse.
Pierce, E. L.—Severn Nelssen.
Pleasure—Archibald Blaine.
Polynesia—F. A. Tomlin.
Prentice, J. H.—C. VanGorder.
Pringle, W. R.—H. C. Brechsieb.

Queen City—J. Conlon.

Regulus—E. M. Bourgeois.
Roberts, W. T.—John A. Montgomery.
Richland Star—J. H. Madden.
Richland Queen—W. J. Mackin.
Rockefeller—W. H. McLachlan.
Rogers, H. H.—A. C. McCallum.
Rensselar—J. O. Reece.
Robinson, C. S.—Frank Randall.
Rhodes, Robert R.—W. H. Ranson.
Recor; E. P.—A. J. Stoll.
Rock Ferry—Wm. Tulloch.
Roberts, Percival, Jr.—A. J. Talbot.

Captains of Steamers—Cont.

Richardson, G. A.—A. F. McCarthy.
Richardson, W. C.—Carl Carlsen.
Robbins, F. L.—H. C. Harbarger.
Rees, W. D.—O. Skuggen.
Replogle—J. M. Brines.
Ralph, P. J.—Alex. T. Young.
Ranney, R. P.—W. S. Ritchie.
Riverton—W. J. Moles.
Robbins, S. H.—J. B. Rinn.

Shiras, M. G.—C. S. Boyce.
Smith, Hulburt W.—Thos. J. Carney.
Smith, Lyman B.—Charles W. Caughell.
Schiller, W. B.—Charles M. Conkey.
South America—Edward Taylor.
Sawyer, W. H.—M. Canartney.
Sherwin, John—P. M. Cartwright.
Schlesinger, Fred.—Ole Dyrness.
Senator—Chas. W. Ernest.
Smith, Wilbert L.—Howard Gell.
Smith, Wilbur—Ben Broderick.
St. Joseph, City of—Oscar Bjork.
Snyder, W. P.—J. F. Jones.
Snyder, W. P.—R. S. Munroe.
Stackhouse, P.—Alex. Johnston.
Siemens—H. Finnegan.
Shenango—Frank H. Ott.
Stephenson—J. L. Hearns.
Stephenson, Geo.—A. T. Packett.
Shaw, H. L.—Frank Rice.
Stanton, John—Chas. Heaton.
Stone, Amasa—Wm. Reed.
Sweden—J. W. Robinson.
Smith, Monroe C.—Edward Stanley.
Superior City—E. L. Sawyer.
Shoonmaker, Col. J. M.—J. J. Slade.
Slick, E. E.—M. M. Stewart.
Saunders, E. N.—S. Sexsmith.
Smith, Lyman C.—James B. Watts.
Shaw, Q. A.—Gordon Low.
Smith, Home—A. McIntyre.
Shaughnessy, Thomas—George Atkinson.
Squires, F. B.—H. W. Emigh.
Seither, Frank—H. Howard.
Steinbrenner, H.—J. W. Kelly.
Sirius—Andrew Cowie.
Sheadle, J. H.—S. A. Lyons.
Sumac—John K. Olsen.
Shiras—A. T. Packett.
Sailor Boy—Harold Berg.
Sappho—Clifford Wilkin.
Saturn—R. Z. Utley.
Sawyer, Philetus—C. E. LeBeau.
Schneider, Cletus—T. B. Bennett
Schoolcraft—Wm. Cunningham.
Scranton—Hector. Brown.
Shrigley, J. H.—W. C. Thompson.
Sierra—Geo. A. Warwick.
Sinaloa—Hugh Stevenson.
Sonora—S. R. Baker.
Sonora—J. E. Drury.
Stadacona—Geo. H. Page.
Stafford, W. R.—Roy Woodford.
Stanton, Jno.—C. A. Benham.
Starke, C. H.—H. J. Kendall.
Steelton—W. J. Kirkwood.
Stephenson, I. W.—L. F. Strahan.
Stephenson, S. M.—J. Sanford.
Stuart, W.—E. Treeblay.
Sullivan, J. J.—W. P. Benham.
Sultana—W. H. McCorkell.

Captains of Steamers—Cont.

Superior—E. C. Leath.
Tomlinson, G. A.—J. H. Smith.
Tremble, Richard—Geo. Banker.
Trimble, Richard—George H. Banker.
Thompson, Smith—Pierre Bouille.
Townsend, E. Y.—M. Anderson.
Taurus—D. B. Elsey.
Truesdale, Wm. H.—F. R. Goodrow.
Transfer—G. W. Honner.
Transport—Walker Norvell.
Taylor, Moses—S. H. Smith.
Thompson, Alex.—G. Swails.
Tashmoo—B. S. Baker.
Taylor, J. F.—R. H. Boyle.
Thompson, C. A.—Wm. Langell.
Toledo, City of—Chas. Merkel.
Tionesta—John Doherty.
Tourist—A. P. Forbeck.
Turner, J. J.—A. H. Hartman.
Troy—Joseph Donahue.

Uhrig, Alex B.—J. L. Bradshaw.
Upson, Andrew S.—Jas. Cannalley.
Uhrig, E. A.—W. W. Eger.
Utley, E. H.—Frank L. Meno.
Upson, J. E.—C. H. Francke.
Uranus—W. J. Tomlin.
Utica—Daniel Murphy.

Venus—R. E. Johnson.
Vega—Ed. Johnston.
Victory—S. W. Matson.
Venezuela—Geo. E. Bennett.
Valcartier—J. A. Brown.
Verona—J. B. Lyons.
Victoria—F. Elliott.
Victoria—Peter Williams.
Vulcan—W. B. Chamberlain.

Weidner, P. A. B.—Geo. Bowen.
Wilson, Thomas—Daniel Bowie.
Warner, Chas.—L. P. Anderhalt.
Wilkes Barre—Henry Durker.
Wilson, Matthew—John Eble.
Wilpen—Benson Fox.
Williams, H. D.—Chas. Gengheim.
Watt, Jas.—F. J. Hunt.
Wickwire, T. J.—James J. Herbert.
Woods, Joseph—W. B. Jerome.
Wilkinson, Horace S.—R. J. Lyons.
Western States—S. O. Robinson.
Wallace, C. C.—C. C. Stewart.
Wolvin, A. B.—John Tower.
Wolf, W. H.—J. D. Wanvig.
Wotan—J. Berenstein.
Wickwire, Jr.—J. W. Montgomery.
Widlar, Francis—A. Forbes.
Walters, Thomas—M. Allen.
Wauketa—Sam Christan.
White, Peter—J. A. Stewart.
Waubic—John Dube.
Walsh, J. P.—J. C. Hays.
Warner, Homer—Wm. Stalker.
Watson, C. W.—C. J. Autterson.
Wente, R. C.—D. O. Lockhardt.
White, W. F.—M. R. MacLean.
Wissahicken—Geo. Delaney.
Wolf, W. H.—J. T. Hansen.
Weidener—Geo. H. Brower.
Woods, Frank—C. B. Coates.
Wyandotte—J. C. McCormick.

Yates, Harry—Martin S. Peterson.
Yorkton—R. Alexander.

Ziesing—John Burns.
Ziesing, Aug.—W. H. Kilby.
Zillah—H. W. Spaulding.
Zenith City—Geo. N. Nuckle.

Names of Captains and Their Boats

Captains of Barges—

Ames, J. N.—Marsala.
Abbott, Geo.—Sherman.

Benson, C.—Jenney.
Birkeland, Theo.—J. I. Case.
Booth John—Mingo.
Briggs, R.—Dayton.
Brown, John—Thomas.
Bennett, L. D.—Mary Woolson.
Brown, R.—Sophia Minch.
Burns, Richard—J. B. Lozen.
Brachman, Chas.—Oak Leaf.

Campbell, John—Corliss.
Christopherson, Carl M.—Marcia.
Campbell, Don—Peshtigo.
*Colson, F. A.—Alex Maitland.
Call, Earnest L.—Ashland.
*Christopher, Sam—R. L. Fryer.

Donald, Wm.—Maida.
*Duncan, V. W.—Owen.
Dick, W. H.—Nasmyth.
Daraway, Henry—J. B. Merriell.

Erickson, James—Ashland.
Ellingsen, Jensen—Our Son.

Graham, Donald—Roebling.
Glessner, Matt—Ida Corning.
*Gustafson, P.—Krupp.
Gordon, Chas.—Manda.
Graham, Colin—L. M. Davis.
Gordon, John—Nellie Redington.
Giddings, E. H.—Daisy Richland.
Goodleib, P. F.—J. H. Stevens.

*Hand, A. S.—Magna.
Hammel, Wm.—Norman Kelley.
Hagerty, J. F.—C. J. Filmore.

Johnson, W. P.—C. E. Redfern.
Jacques, Eli—Tuxbury.

Keenan, W. J.—Arthur.
Kelly, Wm.—J. H. Pellatt.
King, A. B.—A. B. King.

Larsen, Iver—Bell.
Larsen, Iver—137.
Leduc, L.—Gladys "H."
Leduc, T. L.—J. Godfrey.
Leboeuff, Patrick—"A." "B."
Lindberg, Edward—Holley.
Lawrence J.—Thomas Gawn.
LeBocuf, Sam—F. A. Georges.

Malloney, George—Manilla.
*Mallette, P. A.—Constitution.
Mattison, John—S. J. Tilden.
Monet, A. D.—Zapotec.
Mills, Alex.—Crete.
*McDonald, Wm.—Maida.
McGrath, Ralph—Delta.
McCormick, Alex—Goshawk.
McManus, P.—D. P. Dobbins.
*Nordahl, A.—Bryn Mawr.

Ohman, J. H.—Sagamore.
Olsen, Alfred—W. L. Kennedy.

Peltier, Burt.—Golden Age.

Captains of Barges—Continued

Peterson, A. K.—J. A. Francombe.
Poirer, P.—Katie H.

Robenson, J. O.—A. B. Norris.

Saveland. H. M.—Carrington.
Sommerville, Wm.—D. G. Cutler.

White, H. M.—Fritz.
*Wilson, C. L.—Martha.
Williamson, A. W.—S. Wright.
Woodworth, T. K.—Tyrone.

Young, George—Maia.

Names of Boats and Their Captains

Captains of Barges—

Ashland—James Erickson.
Arthur—W. J. Keenan.
Ashland—Earnest Call.

Bell—Iver Larsen.
Bryn Mawr—A. Nordahl.

Corliss, Geo.—John Campbell.
Constitution—P. A. Mallette.
Carrington—H. M. Saveland.
Case, J. W.—Theo. Birkeland.
Corning, Ida—Matt Glessner.
Crete—Alex. Mills.
Cutler, D. G.—Wm. Somerville.

Dayton—R. Briggs.
Delta—Ralph McGrath.
Davis, L. M.—Colin Graham.
Dobbins, D. P.—P. McManus.

Fritz—H. M. White.
Filmore. C. J.—J. F. Hagerty.
Francomb, J. A.—K. Peterson.
Fryer, R. L.—Sam Christopher.

Gladys "H."—L. Leduc.
Golden Age—Burt. Peltier.
Goshawk—Alex McCormick.
Gawan, Thomas—J. Lawrence.
Godfrey, J.—T. L. Leduc.
Georges, F. A.—Sam Lebouef.

Holley—Edward Lindberg.

Jenney—C. Benson.

Katie H.—P. Poirer.
Krupp—P. Gustafson.
Kelly, Norman—Wm. Hammel.
Kennedy, W. L.—Alfred Olson.
King, A. B.—A. B. King.

Lozen, J. B.—Richard Burns.

Marsala—J. N. Ames.
Mingo—John Booth.
Marcia—Carl M. Christopherson
Maida—Wm. McDonald.
Manda—Chas. Gordon.
Magna—A. S. Hand.
Manilla—George Malloney.
Martha—C. L. Wilson.
Maia—George Young.
Maitland, Alex.—F. A. Colson.
Merrill, J. B.—Henry Daryow.
Minch, Sophia—R. Brown.

Naysmith, James—W. H. Dick.
Norris, A. B.—J. O. Robenson.

Our Son—Jensen Ellingsen.
Owen—V. W. Duncan.
Oak Leaf—Chas. Brachman.

Pellatt, J. H.—Wm. Kelley.
Peshtigo—Don Campbell.

Roebling—Donald Graham.
Redington, Nellie—John Gordon.
Redfern, C. E.—W. P. Johnson.
Richland, Daisy—E. H. Giddings.

Sagamore—J. H. Ohman.

Captains of Barges—Continued

Sherman, W. A.—Geo. Abbott.
Stevens, H. J.—P. F. Goodleb.

Thomas—John Brown.
Tuxbury—Eli Jacques.
Tilden, S. J.—John Mattison.

Tyrone—T. K. Woodworth.

Woolson, Mary—L. D. Bennett.
Wright, S.—A. W. Wilkinson.

Zapotec—A. D. Monet.

137—Iver Larsen.
A. D.—Patrick Leoboeuf.

COAL DOCKS OF THE GREAT LAKES

ALGOMA, WIS.

Algoma Fuel Co.—
Capacity 500 to 600 tons per day.
Draft of water 12 to 14 feet.
Maximum length boat can handle at dock, 300 foot.
Supt. H. Grimm.

ALPENA, MICH.

Alpena Coal Co.—
Capacity per day 300 tons.
Draft of water 15 feet.
Can handle 450 foot boats.
Supt. Thomas P. Monaghan.

Bedford & Co., M. N.—
Capacity per day 600 tons.
Depth of water 15 feet.
Can handle boats of any length.
Supt. J. L. Reed.

Fletcher Paper Co.—
Capacity per day 600 tons.
Depth of water 15 feet.
Maximum length of boat 370 feet.

AMHERSTBURG, ONT.

Mullen Coal Co.—
Lower end of Detroit River.
Capacity per 10 hours 600 tons.
Depth of water at dock 20 feet.
Supt. Duerson Gatfield.

ASHLAND, WIS.

Clarkson Coal & Dock Co.—
Capacity per 10 hours on large boats 2,000 tons; small boats 1,500 tons.
Depth of water 20 feet.
Maximum length of boat 620 feet.
Supt. Frank G. Johnson.

Pittsburgh & Ashland Coal & Dock Co.—
Capacity per 10 hours 1,500 tons.
Depth of water 19 feet 6 inches.
Maximum length of boat 440 feet.
Supt. Francis Hogan.

Reiss Coal Co., C. (C. N. & W.)—
Capacity per day 3,500 tons.
Depth of water 18 feet.
Supt. M. Schrank.

ASHTABULA HARBOR, OHIO

Lower Lake Dock Co.—
Leader-News Bldg., Cleveland, O.
McMyler Car Dump (West Side).
Supt. J. M. Amsden.

Pittsburgh Coal Co. (Pennsylvania No. 11)—
McMyler Car Dump (West Side).
Supt. Tom Kirby.

Pittsburgh Coal Co. (Lake Shore No. 9)—
McMyler Car Dump (East Side).
Supt. Robt. W. Dingee.

Pickands-Mather & Co.—
McMyler Car Dump (East Side).
Supt E. O. Whitney.

BAY CITY, MICH.

Central Coal Co.—
Capacity per 10 hours 600 tons.
Depth of water at dock 12 to 15 feet.
Supt. F. W. Braman.

C. M. Clute—
Capacity per 10 hours 300 tons.
Depth of water at dock 13 feet.
Can handle boats of any size.

BEAVER ISLAND, MICH.

James McCann—
Boat to do the hoisting.
Capacity about 250 tons.

BELLEVILLE, ONT.

N. Allens Dock—
Capacity per 10 hours 250 tons.
Depth of water at dock 11 feet.
Supt. N. Allen.

F. S. Anderson Co.—
Capacity per 10 hours 200 tons.
Depth of water at dock 10 feet.
Supt. A. T. Howe.

Downey Coal Co.—
Capacity per 10 hours 225 tons.
Depth of water at dock 10 feet.

Schuster Co.—
Capacity per 10 hours 225 tons.
Depth of water at dock 11 feet.
Supt. Wm. Lindsay.

BIG TRAVERSE BAY, MICH. (See Mohawk, Mich.)

BLIND RIVER, ONT.

Eddy Brothers & Co., Ltd.—
Storage capacity 400 tons.
Depth of water 12 feet 6 inches.
Supt. J. R. Stover.

Government Dock—
W. H. McGauley operator.
Unload with wheel barrows.
Capacity per 10 hours 150 tons.
Depth of water at dock 16 feet.
Maximum length boat 400 feet.

BRUCE MINES, ONT.

Martin International Trap Rock Co.—
Storage capacity 75,000 tons.
2 Belt conveyors, 80 feet apart.
Capacity per 10 hours, both conveyors, will be about 20,000 tons.
Height of spout from water 45 feet.
Height of dock from water 15 feet.
Length of spout 15 feet.
Length of dock 180 feet.
Depth of water at the dock 21 feet.
Supt. W. S. Edward.

BUFFALO, N. Y.

Restof Mining Co. (Salt Shippers)—
Scranton, Pa.
Salt loaded over Erie Trestle.

Sterling Salt Co.—
29 Broadway, N. Y. City.
Loaded at W. J. Connors Dock Ohio Basin.
Depth of water at dock 13 feet.
Capacity per day 300 tons.

D. L. & W.—
Coal trestle.
Supt. G. W. Burke.

Erie R. R.—
Coal trestle.
Supt. Dan Coughlin.

Lehigh Valley—
Coal trestle, maximum beam of boat 54 feet, length 525.

P. & R. Coal & Iron Co.—
Coal trestle. Buffalo, N. Y.
Supt. H. H. Lywell.

STEEL RAIL LOADING DOCKS

Lehigh Valley Dock—
Capacity per 24 hours 1,500 tons.
Can load any length boat.
Maximum beam of boat 52 feet.
Depth of water at dock 19 feet.

Lackawanna Steel Co.—
Capacity per 24 hours 3,300 tons.
Can load any length boat.

BYNG INLET, ONT.

Canadian Pacific Railway—
Capacity per 10 hours 2,500 tons.

CALCITE, PRESQUE ISLE CO., MICH.

Michigan Lime Stone & Chemical Co.—
48 inch conveyor belt used for loading.
Storage capacity 30,000 tons.
Depth of water at dock 21 feet.

CHARLEVOIX, MICH.

McArthurs Dock (M. D. Olds, Prop.)—
Capacity per day 500 tons.
Depth of water 16 feet.
Maximum length of boat 300 feet.
Supt. R. E. Matt.

CHICAGO, ILL. (North Branch)
(See South Chicago also.)

Consumers Co. (Consumers Bldg.)—
Webster Ave. Bridge.
North Branch.
Capacity per 10 hours 1,500 tons.
Depth of water at dock 18 feet.
Can handle 350 foot boat.
Supt. John Arndt, Jr.

Hedstrom-Schenck Coal Co. (D. L. & W.)—
Capacity per ten hours 2,500 tons.
Depth of water at dock 19 feet.

Eureka Coal and Dock Co. (1509 Cortland St.)—
Cortland St. Bridge.
Capacity 250 tons per hour.
Depth of water 22 feet.
Maximum length of boat 300 feet.
Supt. A. T. Sivyer.

Lill-Robinson Coal Co.—
Capacity per 10 hours soft coal 2,400 tons.
Capacity per 10 hours hard coal 3,000 tons.
Depth of water 20 feet.
Supt. W. W. Lill.

Hedstrom & Co., E. L. (North Ave.)—
Capacity per day 2,000 tons.
Depth of water 18 feet 6 inches.
Maximum length of boat 465 feet.
Maximum beam of boat 54 feet.
Supt. Wm. Rhodes.

Lehigh Valley Coal Sales Co.—
Capacity per day 2,000 tons.
Depth of water 20 feet.
Maximum length of boat 408 feet.
Supt. A. Wallace.

Gruschow, Robert H. (L-V) Clybourn Ave.
Capacity per ten hours 2,000 tons.
Depth of water at dock 20 feet.
Supt. Wm. C. Krueger.

Lehigh Valley Coal Sales Co.—
Chicago Ave. Dock.
Capacity per day 2,000 tons.
Depth of water 20 feet.
Maximum length of boat 400 feet.
Supt. A. Wallace.

Lill-Robinson Coal Co.—
Chester St. Dock.
Capacity per 10 hours soft coal 2,400 tons.
Capacity per 10 hours hard coal 3,000 tons.
Depth of water 20 feet.
Maximum length of boat 325 feet.
Supt. W. W. Lill.

Philadelphia & Reading Coal & Iron Co.—
N. Halsted St. Dock.
Capacity per 10 hours 800 tons.

Pittsburgh Coal Co. (Fuel Dock)—
North Pier Dock.
Capacity per 10 hours 1,000 tons.
Depth of water 20 feet.
Maximum length of boat 400 feet.
Supt. A. J. Hitchcock.

Richardson Coal Co., O. S.—
North Branch, "Elston Avenue Dock."
Capacity per 10 hours 3,500 tons.
Depth of water at dock 22 feet.
Maximum length of boat 580 feet.

Scheunemann & Co., O. F.—
Division St.
Capacity per 10 hours 750 tons.

Schenck Co., S. C. (D. L. & W.)—
Division St.—Goose Island.
Capacity per ten hours 2,500 tons.
Depth of water 19 feet.
Maximum length of boat 500 feet.
Supt. J. C. Karman.

SOUTH BRANCH. (Chicago River)

Schenck Co., S. C. (D. L. & W.)—
35th St. Dock.
Capacity per 10 hours 2,500 tons.
Depth of water 18 feet 6 inches.
Can handle boats of any length.
Maximum beam of boat 52 feet.
Supt. Hugh P. Moran.

CHICOUTIMI, QUEBEC

Price Brothers & Co., Ltd.—
Saguenay River.
Capacity per 10 hours 600 tons.
Depth of water at dock 15 feet.
Maximum length of boat 250 feet.
Supt. J. McD. Grosart.

CLEVELAND, OHIO

Pittsburgh Coal Co. (Cuddy-Mullen)—
McMyler Car Dump, 1st Machine.
Supt. A. A. Wedow.

Ellsworth & Co., J. W.—
McMyler Car Dump, 2d Machine.
Supt. P. Gallagher.

East Pier Dock Co.—
Capacity per 10 hours 600 tons.
Depth of water at dock 20 feet.
Supt. P. Gallagher.

Pennsylvania—
McMyler Car Dump, 3d Machine.
Supt. P. Gallagher.

Pittsburgh Coal Co. (Irishtown)—
Wellman-Seaver Car Dump (Above Viaduct).
Supt. Mike McCarthy.

Pittsburgh Coal Co. (West Side Fuel Dock)—
Supt. W. P. Bennett.

COLLINGWOOD, ONT.

Collingwood Packing Co.—
West Side of the Harbor.
Capacity per 10 hours 400 tons.
Depth of water at dock 16 feet.
Length of boat can reach dock 400 feet.
Supt. John Bannan.

Collingwood Ship Building Co., Ltd.—
Capacity per 10 hours 300 tons.
Depth of water at dock 16 feet.
Can handle boats of any length.

Northern Navigation Co.—
One Steam Hoist.
Capacity 400 tons.

COURTRIGHT, ONT.

Western Salt Co., Ltd.—
One-half mile below Courtright.
Capacity per 10 hours 450 tons.
Depth of water at dock 19 feet.
Maximum length of boat 300 feet.
Supt. W. A. Leach.

DE PERE, WIS.

American Writing Paper Co.—
Depth of water 15 feet.
Maximum length of boat 500 feet.
Supt. J. S. Gittins.

De Pere Co-Operative Coal Co.—
Capacity per day 500 tons.
Depth of water 15 feet.
Maximum length of boat 250 feet.
Supt. H. Barlament.

Wells Co., A. G.—
Capacity per day hard coal 900 tons.
Capacity per day soft coal 500 tons.
Depth of water 15 feet.
Maximum length of boat 300 feet.
Foreman. W. S. Altmayer.

DEPOT HARBOR, ONT.

Grand Trunk Ry. Co.—
Capacity per 10 hours 1,300 tons.
Depth of water 21 feet.
Maximum length of boat 500 feet.
A. J. Brett, Agent.

DETOUR, MICH.

Detour Dock Co.—
Pickands-Mather & Co., Cleveland, Ohio.
Capacity per 10 hours 2,500 tons.
16 pockets, capacity 2,000 tons.
Depth of water at dock 23 feet.
Can handle boats of any length.
Fuel dock exclusively.
W. H. Lewis, Agent.

Valley Camp Fuel Dock—
One McMyler.
Capacity per 10 hours 500 tons.
Depth of water 21 feet.
Maximum length of boat 600 feet.
Fueling dock also.

DESERONTO, ONT.

Canada Cement Co., Ltd.—
Capacity per 10 hours 600 tons.
Depth of water at dock 14 feet.
Can handle boats of any length.
Supt. Elmor French.

Rathbun Co.—
Capacity per 10 hours 300 tons.
Depth of water at dock 12 feet.
Supt. H. B. Sherwood, Napanee Ont.

DETROIT, MICH.

United Fuel & Supply Co. (Formerly Stanley B. Smith & Co.)—
12 Overhead pockets, 600 tons capacity.
Fueling capacity 300 tons per hour.
Capacity per 10 hours 700 tons.
Depth of water at dock 25 feet.
Mgr. J. M. McKerchey.
Fueling station.

Water Works—
Depth of water 13 feet.
Capacity per day 350 tons.

DOLLAR BAY, MICH.

Tamarack Mining Co. (Union Dock)—
Capacity per 10 hours 3,000 tons.
Depth of water 19 feet 6 inches.
Can handle boats of any length.
Supt. Hugh Moore.

Tamarack Osceola Copper Mfg. Co. (Wire Mill Dock)—
Capacity per 10 hours 450 tons.
Depth of water 20 feet.
Can handle boats of any length.
Supt. F. W. Foley.

DULUTH, MINN.

Berwind Fuel Co. (Dock No. 2)—
West Duluth Dock.
Capacity per 10 hours 10,000 tons.
Depth of water at dock 22 feet.
Can handle boats of any length.
Supt. W. K. Link.

Carnegie Fuel Co., Dock No. 2 (Bituminous)—
Capacity per 10 hours 5,000 tons.
Can handle any size boat.
Depth of water about 20 feet.
Supt. B. McNamara.

Carnegie Fuel Co., Dock No. 2 (Anthracite)—
Capacity per 10 hours 5,000 tons.
Depth of water about 22 feet.
Supt. B. McNamara.

Clarkson Coal & Dock Co.—
Rices Point, between Capital & Consolidated Elevators.
Capacity per 10 hours 3,000 tons.
Capacity per 10 hours 2,000 tons.
Depth of water at dock 20 feet.
Can handle any size boat.
Supt. J. J. Davidson.

Cutler & Co., D. G. (Stone Dock)—
Located in Slip No. 5.
Capacity per 10 hours 1,400 tons.
Depth of water 17 feet.
Maximum length of boat 300 feet.
Supt. D. Ridgewell.

Duluth, Missabe & Northern Ry. Co.—
Capacity per 10 hours 12,000 tons.
Depth of water 22 feet.
Can handle boats of any length.
Supt. C. H. Fugle.

Island Creek Coal Dock Co., Dock No. 1—
St. Louis River, West Duluth.
Capacity per 10 hours 6,000 tons.
Depth of water at dock 24 feet.
Supt. A. W. Fay.

North Western Fuel Co.—
Foot of 5th Ave.
Capacity per 10 hours 2,500 tons.
Depth of water 18 feet.
Can handle boats of any length.
Supt. A. C. Jones.

North Western Fuel Co., Dock No. 6 (Pgh. No. 1)—
Capacity per 10 hours 10 rigs 5,000 tons.
Depth of water at dock 19 feet.
Maximum length of boat 600 feet.
Supt. A. C. Jones.

Pittsburgh Coal Co. (Dock No. 7)—
Capacity per 10 hours 8,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 600 feet.
Supt. Chas. Gallagher.

Zenith Furnace Co.—
Capacity per 10 hours 6,500 tons.
Depth of water at dock 22 feet.
Can handle boats of any length.
Supt. F. C. Harris.

EMPIRE, MICH.

J. Wilcox Co. (Empire Lumber Co.)—
Depth of water at dock 14 feet.
Can handle boats of any length.
Supt. E. R. Dailey.

ERIE, PA.

Y. & O. Coal Co.—
McMyler Car Dump.

Hammermill Paper Co.—
Capacity per day 800 cords.
Depth of water at dock 18 feet.
Can handle any length boat.
Supt. E. Held.

ERIEAU, ONT.

Lake Erie Navigation Co.—
Capacity per 10 hours 2,000 tons.
Depth of water at dock 20 feet.
A. Leslie, Gen. Mgr.

ESCANABA, MICH.

Central Coal Co. (C. M. & St. P.)—
Capacity per 10 hours 2,000 tons.
Depth of water at dock 25 feet.
Can handle boats of any length.
Supt. J. Earling.

Reiss Coal Co., C. (C. & N. W.)—
Capacity per 10 hours 2,500 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. S. R. Wickham.

FAIRPORT, OHIO

Pittsburgh Coal Co.—
McMyler Car Dump.
Supt. A. G. Miltner.

FAIR HAVEN, N. Y.

Lehigh Valley Coal Trestle—
Supt. R. L. Gebhardt.

FORT WILLIAM, ONT.

Canadian Pacific Ry. Co.—
Capacity per 10 hours 6,500 tons.
Depth of water at dock 22 feet.
Can handle boats of any length.
Supt. O. Peterson.

Canadian Pacific Ry. Co.—
Capacity per 10 hours 700 tons.
Depth of water at dock 22 feet.
Supt. O. Peterson.

Canadian Pacific Ry. Co. (Island Dock)—
Capacity per 10 hours 8,500 tons.
Depth of water at dock 22 feet.
Can handle boats of any length.
Supt. O. Peterson.

Fort William Coal Dock Co.—
Capacity per 10 hours 5,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. G. A. Benson.

Murphy, James—
Kaministiquia River.
Capacity per 10 hours 1,400 tons.
Depth of water at dock 20 feet.
Can handle any size boat.

Steel Rail Unloading Docks—
Canadian Pacific Railway.
Grand Trunk Pacific Railway.
Canadian Northern Railway.

GARY, IND.

Indiana Steel Co. (Rail Loading Dock)—
Capacity 2,400 tons in 48 hours.
Depth of water at dock 20 feet.

GLADSTONE, MICH.

Pittsburgh Coal Co.—
Capacity per 10 hours 3,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. Peter Peterson.

GOAT ISLAND, ONT.

Algoma Eastern Terminals—
North side of Little Current Channel.
Capacity per 10 hours 2,000 tons.
Depth of water at dock 22 feet.
Maximum length of boat 350 feet.
Supt. T. F. Rahilly.

GODERICH, ONT.

Electric Light Plant—
Capacity per day 225 tons.

Goderich Elevator & Transit Co.—
Capacity per day 300 tons.
Depth of water at dock 18 feet.
Maximum length of boat 300 feet.
Supt. G. L. Parsons.

Western Canada Flour Mill Co., Ltd.—
Capacity per 10 hours 500 tons.
Capacity 10 hours 300 tons.
Depth of water at dock 18 feet 6 inches.
Length of boat can reach dock 300 feet.
Supt. R. J. Megaw.

GREEN BAY, WIS.

Central Coal Co. (C. M. & St. P.)—
Capacity per 10 hours 2,000 tons.
Depth of water at dock 18 feet and 6 inches.
Can handle boats of any length.
Supt. Henry Stange.

Interstate Coal & Dock Co.—
Capacity per day 3,000 tons.
9,000 tons 35 hours.
Depth of water at dock 18 feet and 6 inches.
Can handle boats of any length.
Supt. H. L. Fiedler.

Barkhausen Retail Dock, H. A.—
Capacity per 10 hours 700 tons.
Depth of water at dock 18 feet and 6 inches.
Maximum length of boat 300 feet.

Hurlbut Co., F.—
Capacity per day 500 tons.
Depth of water at dock 18 feet.

Maximum length of boat 650 feet.
Supt. A. Francois.

Reiss Coal Co., C.—
Capacity per 10 hours 4,000 tons.
Depth of water at dock 18 feet 6 inches.
Can handle boats of any length.
W. B. Gueinzirus, Mgr.

GROSSE POINT, MICH.

P. O. Address, Point Mills, Mich.

Arcadian Mining Co.—
Capacity per day 300 tons.

Asphalt Block Pavement Co. (Sand Dock)—
Loading capacity 3,000 tons per 10 hours.
Depth of water at dock 21 feet.
Supt. Henry F. Key, Hancock, Mich.

Franklin Mining Co.—
Capacity per day 700 tons.
Depth of water at dock 20 feet.
Supt. E. S. Warne.

HANCOCK, MICH.

City Dock (Water Works)—
Capacity per day 500 tons.
Depth of water at dock 18 feet.

Houghton County Traction Co.—
Capacity per day 400 tons.
Depth of water at dock 19 feet.
Supt. John Ralph, Jr.

People's Fuel Co.—
Capacity per 10 hours hard coal 1,200 tons.
Capacity per 10 hours soft coal 800 tons.
Depth of water at dock 19 feet 6 inches.
Maximum length of boat 310 feet.
Supt. Richard Vincent.

Portage Coal & Dock Co.—
Capacity per 10 hours 2,500 tons.
Depth of water at dock 19 to 22 feet.
Can handle boats of any length.
Supt. J. H. Hicok.

Portage Lake Foundry & Machine Co.—
Capacity per day 300 tons.
Depth of water at dock 18 feet.
Maximum length of boat 400 feet.
Supt. L. M. Cleaves.

Mineral Range Railroad Co.—
Capacity per 10 hours 1,000 tons.
Depth of water at dock 15 feet.
Maximum length of boat 300 feet.
Supt. T. W. Smith, Calumet, Mich.

Quincy Smelting Co.—
Capacity per day 600 tons.

HOUGHTON, MICH.

Copper Range Railroad Co.—
Capacity per 10 hours 3,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 700 feet.
Supt. A. E. Ehlers.

Houghton County Traction Co.—
Capacity per 10 hours 500 tons.
Depth of water at dock 20 feet.
Can handle boats of 400 foot length.

Van Orden Co., M.—
Capacity per 10 hours 1,500 tons.
Depth of water at dock 21 feet.
Can unload any size boat.
Supt. Louis Reidy.

HUBBELL, MICH.

Calumet & Hecla Smelting Works—
Capacity per day 3,500 tons.
Depth of water 22 feet.
Can unload any size boat.

Ethier, Joseph—
Capacity per 10 hours hard coal 600 tons.
Capacity per 10 hours soft coal 400 tons.
Depth of water 18 feet.
Maximum length of boat 275 feet.
Supt. J. J. Ethier.

Quincy Mill—
Capacity per day 2,500 tons.
Supt. Ralph Hayden.

HURON, OHIO

W. & L. E.—
Car Dump No. 1 (East Side).

W. & L. E.—
Car Dump No. 2 (West Side).
Supt. T. R. Gillmore.

INDIANA HARBOR, IND.

Inland Steel Co.—
Capacity per 10 hours 4,000 tons.

Depth of water at dock 20 feet.
Maximum length of boat 600 feet.
Supt. John W. Lees.

JACKFISH, ONT.

Canadian Pacific Ry. Co.—
Capacity per 10 hours 2,500 tons.

KELLEY ISLAND, OHIO

Kelley Island Lime & Transport Co.—
Depth of water inner end 16 feet.
Depth of water at outer end 21 feet.

Kelley Island Lime & Transport Co.—
North Side Dock.
Can load 1,200 tons per day.
Depth of water at dock 13 feet 6 inches.

Kelley Island Lime & Transport Co.—
South Side Dock.
Can load 1,200 tons per day.
Depth of water at dock 12 feet 6 inches.

KENOSHA, WIS.

Allen's Sons Co., N. R.—
Storage capacity 7,500 tons.

Baldwin Coal Co., Geo. S.—
Capacity per day hard coal 800 tons.
Capacity per day soft coal 700 tons.
Maximum length of boat 300 feet.
Depth of water 17 feet.

O'Donnell Coal Co., John—
Capacity per 10 hours hard coal 650 tons.
Capacity per 10 hours soft coal 500 tons.
Depth of water at dock 17 to 18 feet.
Maximum length of boat 500 feet.

KEWAUNEE, WIS.

Kewaunee Grain Co.—
Capacity per day 300 tons.
Storage capacity 3,000 tons.
Depth of water at dock 16 feet.
Can handle boats of any length.
Supt. G. A. Duvall.

KEY HARBOUR, ONT.

Canadian Northern Ontario Railway Dock—
Capacity per 10 hours 1,200 tons.
Depth of water at dock 21 feet.
Can handle boats of any length.
D. Crombie, Supt. Trans., Toronto.
O. Ruby, Lake Forwarding Agent, Rockefeller Bldg., Cleveland. O.

KINGSTON, ONT.

James Swift & Co.—
Capacity per 10 hours 400 tons.
Depth of water at dock 12 feet.
Length of boat can reach dock 400 feet.
Supt. James Swift.

Canadian Locomotive Co., Ltd.—
Capacity per 10 hours 500 tons.
Depth of water at dock 12 feet.
Maximum length of boat 550 feet.

Soward's Coal Co. & Crawfords Dock—
Capacity per 10 hours 400 tons.
Depth of water at dock 14 feet.
Supt. J. F. Soward.

Water Works Dept.—
Depth of water at dock 14 feet.
Mgr. C. C. Folger.

KINCARDINE, ONT.

Kincardine Electric Light & Gas Dept.—
Capacity per day 375 tons.
Depth of water at dock 15 to 17 feet.
Supt. J. R. McLinden.

Ontario People's Salt & Soda Co., Ltd.—
Depth of water at dock 14 feet.
Maximum length boat 200 feet.
John Talmie, Secy.

KNIFE RIVER, MINN.

Duluth & Northern Minnesota Ry. Co.—
Capacity per 10 hours 500 tons.
Depth of water at dock 15 feet.
Supt. Frank Kam.

LAKE LINDEN, MICH.

Calumet & Hecla Mining Co.—
Capacity 10 hrs. 3.000 tons, 5,000. tons.

Lake Linden Fuel & Supply Co.—
Capacity per day 400 tons.

LIME ISLAND, MICH.

Pittsburgh Coal Co. (Fueling Station)—
Unloading capacity per 10 hours 1,800 tons.
Two coaling pockets, capacity 375 tons each, with 4 spouts each.
Height of spouts from water 47 feet.
Length of dock 800 feet.
Depth of water at dock 24 feet.

LITTLE CURRENT, ONT.

Algoma Eastern Railway Co.—
Sudbury, Ont.
Capacity per 10 hours 2,000 tons.
Supt. J. E. Parkes.

LORAIN, OHIO

Baltimore & Ohio Ry. Co.—
2 McMyler Car Dumps.
No. 1 machine below the bridge.
No. 2 machine above N. Y. C. and St. Louis Ry. Bridge.
Supt. C. E. Pierce.

LUDINGTON, MICH.

Morton Salt Co.—
Capacity per day 1200 tons.
Depth of water 17 feet 6 inches.
Maximum length of boat can handle 315 feet.
Supt. E. C. Hardy.

Cartier Sons Co., A. E.—
Depth of water at dock 17 feet.
Maximum length of boat 350 feet.
Supt. M. J. McBane.

Stearns Salt & Lumber Co. (Salt Dock)—
Loading capacity 1,000 bbls. per hours or 75 tons per hour.
Depth of water at dock 17 feet.

MACKINAC ISLAND, MICH.

Arnold, George T.—
Capacity per day 500 tons.
Depth of water 14 feet.
Supt. George Lapene.

MANISTEE, MICH.

Duncan, J. W.—
Capacity per day 300 tons.
Depth of water at dock 15 feet.
Maximum length of boat 250 feet.

American Hide & Leather Co.—
Coal handled by J. W. Duncan.

Buckley & Douglass Lumber Co. (Salt Dock)—
Capacity per 10 hours 800 tons.
Depth of water 15 to 16 feet.
Maximum length of boat 350 feet.
Supt. John Lobalski.

MANISTIQUE, MICH.

Chicago Lumbering Co.—
Capacity per day 200 tons.
Depth of water at dock 16 feet.
Can handle boats of any length.
Supt. F. Garrett.

MANITOWOC, WIS.

Goodrich Transportation Co.—
Capacity per day 700 tons.

Johnson Spindler Co.—
Capacity per 10 hours 850 tons.
Depth of water at dock 18 feet.
Maximum length of boat 300 feet.
Supt. W. A. Huchthausen.

Manitowoc Land & Fuel Co.—
Capacity per day hard coal 1,500 tons.
Capacity per day soft coal 900 tons.
Depth of water at dock 18 feet.
Maximum length of boat 350 feet.

Reiss Coal Co., C. (C. & N. W. Dock)—
Depth of water at dock 19 feet.

Reiss Coal Co., C. (Soo Dock)—
Capacity per 10 hours 2,500 tons.
Can handle 550 foot boat.
Supt. J. E. Cory.

MARINETTE, WIS.

Marinette Fuel & Dock Co.—
Capacity per day 500 tons.
Depth of water 15 feet.
Can handle 500 foot boat.
Supt. C. P. Nevins.

MARQUETTE, MICH.

Pickands & Co., Ltd., James—
Capacity per day 3,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 600 feet.
Supt. Nels Hagen.

Spear & Sons. F. B.—
Capacity per day hard coal 1,800 tons.
Capacity per day soft coal 1,500 tons.
Depth of water at dock 17 feet.
Can handle boats of any length.

MEAFORD, ONT.

Georgian Bay Milling & Power Co.—
Capacity per day 350 tons.
Depth of water at dock 19 feet.
Can unload boats of any length.
Supt. W. T. Moore.

MENOMINEE, MICH.

Central West Coal Co.—
Capacity per 10 hours 3,000 tons.
Depth of water at dock 18 feet.
Can handle any length boat.
Supt. E. P. Smith.

Lyon Brothers—
Capacity per day 600 tons.
Depth of water at dock 15 feet.
Maximum length of boat 300 feet.
Supt. C. O. Lyon.

Menominee River Sugar Co.—
Capacity per 10 hours 400 tons.
Depth of water at dock 17 feet.
Maximum length of boat 400 feet.
George McCormick, Mgr.

Nowack, T. C.—
Capacity per day 400 tons.
Depth of water at dock 15 feet.
Maximum length of boat 140 feet.

MICHIPICOTEN HARBOUR, ONT.

Commercial Dock—
Capacity per 10 hours 800 tons.
Depth of water at dock 20 feet.
Maximum length of boat 400 feet.
Supt. S. Worth.

MIDLAND, ONT.

Midland Coal Dock Co., Ltd. (Canada Steamship Lines)—
Capacity per 22 hours 2,200 tons.
Depth of water at dock 22 feet.
Maximum length of boat 500 feet.
O. Ruby, Lake Forwarding Agent, Rockefeller Bldg., Cleveland, O.
Supt. D. S. Pratt.

Fellenz Coal & Dock Co. (Old North Side)—
Milwaukee River—Racine St. Bridge 1256 Bremen St.
Size of clam shells used ¾ ton.
Capacity per 10 hours 1,000 tons.
Storage capacity 52,000 tons.
Maximum length of boat 500 feet.
Depth of water at dock 20 feet.
Supt. L. Ranscher.

Great Lakes Trans. Co. (Ltd.)—
Capacity per 10 hours 2,000 tons.
Depth of water 22 feet.
Can handle any size boat.
Supt. D. H. Clark.

MILWAUKEE, WIS.

Callaway Fuel Co.—
Cherry St. Bridge.
Capacity per 10 hours 1,200 tons.
Depth of water at dock 19 feet.
Supt. Charles Peterman.

Central Coal Co.—
North Menominee River.
25th Street Dock.
Capacity per 10 hours 6,000 tons.
Depth of water at dock 21 feet.
Maximum length of boat 650 feet.
Supt. E. J. Barthel.

Gallun & Sons, A. F. (Tannery)—
Milwaukee River.
Capacity per 10 hours 750 tons.
Maximum length of boat 300 feet.

Great Lakes Coal & Dock Co. (St. Paul)—
North Menominee Canal.
Capacity per 10 hours 6000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 470 feet.

Kanawha Fuel Co.—
Pabst Slip.
Capacity per 10 hours 2,500 tons.
Depth of water at dock 19 feet.
Maximum length of boat 380 feet.

Kanawha Fuel Co.—
North Menominee River.
Muskego Avenue.
Capacity per 10 hours 1,500 tons.
Depth of water at dock 20 feet.
Maximum length of boat 650 feet.

Kanawha Fuel Co.—
Whitnall Dock.

North Menominee River.
4 Portable Electric Hoists.
1½ ton clam shells used.
Capacity per hour 300 tons.

Lehigh Valley Coal Sales Co.—
South Menominee River.
Canal Street Dock.
Capacity per 10 hours 3,000 tons.
Depth of water at dock 19 feet 6 inches.
Maximum length of boat 434 feet.
Supt. C. O. Hansen.

Milwaukee Coke & Gas Co.—
Kinnickinnic River.
Greenfield Avenue.
Capacity per 10 hours 6,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 625 feet.
Supt. J. F. Blackie.

Milwaukee-Western Fuel Co.—
Milwaukee River.
Cherry Street Dock.
Capacity per 10 hours hard coal 4,500 tons.
Capacity per 10 hours soft coal 2,500 tons.
Depth of water at dock 19 feet.
Maximum length of boat 450 feet.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
Milwaukee River.
Commerce Street Dock.
Capacity per 10 hours 2,000 tons.
Depth of water at dock 19 feet.
Maximum length of boat 450 feet.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
Kinnickinnic River.
Washington Street Dock.
Capacity per 10 hours 5,000 tons.
Depth of water at dock 19 feet.
Maximum length of boat 600 feet.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
Kinnickinnic River.
Kinnickinnic Avenue Dock.
Capacity per 10 hours hard coal 4,500 tons.
Capacity per 10 hours soft coal 1,500 tons.
Depth of water at dock 19 feet.
Can handle any length boat.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
Kinnickinnic River.
Greenfield Avenue Dock.
Capacity per 10 hours 3,000 tons.
Depth of water at dock 19 feet.
Can handle any length boat.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
Anthracite Dock.
North Menominee River.
Sixteenth Street Dock.
Capacity per 10 hours hard coal 5,000 tons.
Depth of water at dock 19 feet.
Can handle any length boat.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
North Menominee River.
Sixteenth Street Dock.
Capacity per 10 hours 8,000 tons.
Depth of water at dock 19 feet.
Can handle any length boat.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
North Menominee River.
Canal Street Dock.
Capacity per 10 hours hard coal 4,000 tons.
Capacity per 10 hours soft coal 3,000 tons.
Depth of water at dock 19 feet.
Can handle any length boat.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
South Menominee River.
Pabst Slip.
Capacity per 10 hours soft coal 1,500 tons.
Depth of water at dock 17 feet.
Maximum length of boat 380 feet.
Supt. W. F. Ardern.

Milwaukee-Western Fuel Co.—
14 Grand Ave.
North Menominee River.
Canal Street Dock (Muskego Ave. Bridge).
Capacity per 10 hours hard coal 4,000 tons.
Capacity per 10 hours soft coal 3,000 tons.
Depth of water at dock 20 feet.
Storage capacity 150,000 tons.

Can handle any length boat.
Supt. W. F. Ardern.

Philadelphia & Reading Coal & Iron Co.—
North Menominee River.
West 16th Street Viaduct.
Capacity per 10 hours 1,500 tons.
Capacity per 10 hours 700 tons.
Capacity per 10 hours slack coal 1,000 tons.
Depth of water at dock 18 feet.
Maximum length of boat 460 feet.
Supt. John T. Berns.

Schlitz Brewing Co., Joseph—
Milwaukee River.
Capacity per 10 hours 2,500 tons.
Depth of water at dock 20 feet.
Maximum length of boat 505 feet.
Supt. U. B. Uihlein.

United Coal & Dock Co. (Gross)—
Menominee River—Sixth st. Bridge.
Size of clam shells used 1½ ton.
Capacity per 10 hours 3,000 tons Bituminous.
Capacity per 10 hours 5,000 tons Anthracite.
Depth of water at dock 20 feet.
Supt. J. J. Bosch.

United Coal & Dock Co.—
Independent Dock, Mouth of Harbor.
Kinnickinnic River—National Ave.
Capacity per 10 hours 5,500 tons.
Can handle any length boat.

United Coal & Dock Co. (Y. & O.)—
25th Street Dock.
Capacity per 10 hours 5,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 600 feet.
Supt. Joe Ulwelling.

Youghiogheny & Ohio Coal Co.—
South Menominee River (Wagner Slip).
Capacity per 10 hours 4,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 430 feet.
Supt. B. J. Boyle.

MOHAWK, MICH.

Mohawk Mining Co.—
Capacity per 10 hours 800 tons.
Depth of water at dock 18 feet.
Maximum length of boat 350 feet.
Supt. Andro Picotte.

Wolverine Copper Co.—
Coal unloaded over the dock of the Mohawk Mining Co.

MONTREAL, CAN.

Century Coal Co., Ltd.—
Capacity per 10 hours 2,400 tons.
Supt. Robert Wallace.

Century Coal Co., Ltd.—
Capacity per 10 hours 600 tons.
Depth of water at dock 14 feet.
Supt. Robert Wallace.

Canada Cement Co., Ltd., Plant No. 1—
Pointe-aux-Trembles.
Capacity per 10 hours 2,400 tons.
Depth of water at dock 25 feet.
Maximum length of boat 600 feet.
Supt. F. B. Kilbourn.

Canada Cement Co., Ltd.—
Montreal Harbor.
Capacity per 10 hours 700 tons.
Depth of water at dock 25 to 30 feet.
Maximum length of boat 600 feet.
Supt. F. B. Kilbourn.

Canadian Import Co.—
Near entrance of Lachine Canal.
Capacity per 10 hours 2,000 tons.
Depth of water at dock 25 feet.
Supt. W. Q. Stobo.

Canada Sugar Refining Co.—
Wellington Basin, Lachine Canal.
Capacity each set, per 10 hours, 600 tons.
Depth of water boats can draw arriving at dock 14 feet 6 in.
Maximum length of boat that can reach dock 250 feet.
Supt. Mr. Bowers.

Canadian Rolling Mills Co. (Ltd.)—
Located in Lachine Canal.
Capacity per 10 hours 750 tons.
Depth of water at dock 14 feet.
Maximum length of boat 256 feet.
Supt. John Herbaud.

Dominion Coal Co., Ltd.—
Hochelago, Windmill Point.
Capacity each set per hour 1,700 tons.
Depth of water at dock 26 feet.
Supt. A. MacKenzie.

Hall Coal Co., Ltd., George—
Lachine Canal.
Capacity per 10 hours 2,000 tons.
Depth of water at dock 14 feet.
Maximum length of boat 275 feet.
Supt. C. W. Kelly.

Montreal Light, Heat & Power Co.—
Lasalle Gas Works (Lachine Canal).
Capacity per 10 hours 2,500 tons.
Depth of water at dock 14 feet 6 inches.
Maximum length of boat 256 feet.
Supt. Sam Skinner.

Montreal Light, Heat & Power Co.—
Hochelaga Montreal Harbor.
Capacity per 10 hours 2,500 tons.
Depth of water at dock 33 feet.
Maximum length of boat 550 feet.
Supt. Sam Skinner.

Nova Scotia Steel & Coal Co., Ltd.—
Bickerdike Pier, Windmill Point.
Capacity per 10 hours 2,000 tons.
Capacity per 10 hours 600 tons.
Depth of water at dock 28 feet.
Maximum length of boat 650 feet

Ogdensburg Coal & Towing Co.—
No. 1 Basin, Lachine Canal.
Capacity per 10 hours 1,200 tons.
Depth of water at dock 14 feet.
Maximum length of boat 260 feet.

Ogdensburg Coal & Towing Co.—
Str. Henry, Lachine Canal.
Capacity per 10 hours 600 tons.
Depth of water at dock 14 feet.
Maximum length of boat 260 feet.

Robertson, Farquhar—
No. 3 Basin, Lachine Canal.
Capacity per 10 hours 1,000 tons.
Depth of water at dock 14 feet.
Can handle any length boat.
Supt. Duncan Robertson.

Routh & Son, F. A.—
Capacity per 10 hours 500 tons.

The Steel Company of Canada—
Located on the Lachine Canal.
Capacity per 10 hours 600 tons.
Depth of water at dock 14 feet 6 inches.
Maximum length of boat 250 feet.
Supt. H. M. Jaquays.

The Steel Company of Canada—
Located on the Lachine Canal.
Capacity per 10 hours 600 tons.
Depth of water at dock 14 feet 6 inches.
Maximum length of boat 250 feet.
Supt. H. M. Jaquays.

MUSKEGON, MICH.

Bauknecht Brothers—
Capacity per 10 hours 250 tons.
Depth of water at dock 14 feet.
Can handle boats of any size.
Supt. H. A. Banknecht.

OGDENSBURG, N. Y.

Hall Coal & Transportation Co., George—
East End of City.

OSWEGO, N. Y.

Delaware-Lackawanna & Western Coal Trestle—

OWEN SOUND, ONT.

Electric Light Dock—
Capacity per 10 hours 300 tons.
Depth of water at dock 20 feet.
Can handle any size boat.
Supt. Joseph McLinden.

Canadian Malleable Iron Co., Ltd.,—
Depth of water 14 feet.
Can handle boats of any length.

Canadian Pacific Railway Co.—
One McMyler with Clam.
Capacity per day 400 tons.

Owen Sound Municipal Dock—
Capacity 10 hours 250 tons.
Depth of water 16 feet.
R. R. Connections, G. T., C. P. R.
Supt. J. R. McLinden.

Davis-Smith-Malone Co., Ltd.—
Capacity per hoist 100 tons per day.
Depth of water at dock 18 feet.
Can handle boats of any length.
J. M. Davis, Pres. & Mgr.

McLauchlan Supply Co., Ltd., J. K.—
Capacity per 10 hours 300 tons.
Depth of water at dock 16 feet.
Maximum length of boat 400 feet.

PARRY SOUND, ONT.

Beatty Co., Ltd., William—
Capacity per 10 hours 225 tons.
Depth of water at dock 18 feet.

PICTON, ONT.

Hepburn Brothers—
Saginaw Steam Winch.

POINT EDWARD, ONT.

Century Coal Co., Ltd.—
Capacity per 10 hours 450 tons.
Depth of water at dock 20 feet.
R. R. connection, G. T.
Supt. H. H. Gildersleeve.

PORT ARTHUR, ONT.

Canadian Northern Coal & Ore Dock Co., Ltd.—
Capacity per 10 hours 7,000 tons.
Depth of water at dock 19 feet.
Can unload boats of any size.
Supt. M. O'Leary.
O. Ruby, Lake Forwarding Agent, Rockefeller Bldg., Cleveland, O.

Steel Rail Unloading Docks—
Canadian Northern Railway.

PORT COLBORNE, ONT.

Century Coal Co., Ltd.—
Capacity per 10 hours 600 tons.
Capacity 10 hours 300 tons.
Work night and day during season. of navigation.
Depth of water at dock 19 feet.

PORT DALHOUSIE, ONT.

Hutchinson Estate (Fueling Dock)—
Capacity per 10 hours 300 tons.
Depth of water at dock 17 feet.
Supt. Edw. Quackenbush.

PORT HURON, MICH.

Kern Brewing Co.—
Capacity per 10 hours 350 tons.
Depth of water at dock 13 feet 6 inches.

McCollom & Co., I. E.—
Capacity per 9 hours 300 tons.
Depth of water at dock 14 to 15 feet.
Maximum length of boat 250 feet.

Miller Coal & Dock Co.—
Capacity per 10 hours 400 tons.
Depth of water at dock 20 feet.
Can handle any size boats.
Fueling dock
Supt. J. E. Fellows.

Port Huron Sulphite & Paper Co.—
Capacity per 9 hours 650 tons.
Depth of water at dock 17 feet.
Supt. E. W. Kiefer.

Port Huron Gas & Electric Light Co. (Electric Plant)—
Capacity per 10 hours 300 tons.
Depth of water at dock 14 feet.
Can handle boats of 300 feet length.
Supt. Frank J. E. O'Hara.

Port Huron Gas & Electric Co. (Gas Plant)—
Capacity per 10 hours 300 tons.
Depth of water at dock 13 feet.
Maximum length of boat 300 feet.
Supt. J. C. Sloan.

Port Huron Salt Co.—
Capacity 500 tons.
Depth of water at dock 17 feet.
Can handle boats of any length.
Supt. Otto Huette.

Port Huron & Sarnia Ferry Co.—
Capacity per 10 hours 150 tons.
Depth of water at dock 14 feet.
Maximum length of boat 300 feet.

Thompson Coal Co.—
Capacity per 10 hours 500 tons.

PORT WASHINGTON, WIS.

Milwaukee Northern Electric Ry. Co.—
Capacity per 10 hours 400 tons.
Depth of water at dock 16 feet.
Maximum length of boat 360 feet.
Supt. F. W. Walker.

Port Washington Fuel Co.—
Capacity per 10 hours 400 tons.
Depth of water at dock 16 feet.
Maximum length of boat 215 feet.
Supt. W. C. Mitchell.

PRESCOTT, ONT.

Hall Coal & Transportation Co., Geo.—
East End of City.
Capacity per 10 hours 3,000 tons.
Depth of water at the dock 19 feet.
Supt. Harry M. Atwood.

QUEBEC, QUEBEC

Canadian Import Co.—
Louise Dock, Louise Basin.
Capacity per 10 hours 1,200 tons each tower.
Depth of water at dock 25 feet
Supt. D. Burridge.

Century Coal Co., Ltd.—
72 Dalhousie St.
Capacity per 10 hours 650 ton.
Depth of water at dock 15 feet.
Supt. D. A. Mundy.

Dominion Coal Co., Ltd.—
Louise Basin.
Capacity 500 tons per hour.
Depth of water at dock 28 feet.
Maximum length of boat 400 feet.
Supt. William Lambton.

Nova Scotia Steel & Coal Co., Ltd.—
Capacity per 10 hours 1,800 tons.

RACINE, WIS.

Carroll Coal Co.—
Capacity per 10 hours 750 tons.
Depth of water at dock 16 feet 6 inches.
Maximum length of boat 250 feet.
Supt. Geo. T. Caystill.

Pugh, W. H., Dock No. 1—
Capacity per 10 hours 1,000 tons.
Depth of water at dock 18 feet.
Can handle boats of any length.

Pugh, W. H., Dock No. 2—
Capacity per 10 hours 900 tons.
Depth of water at dock 16 feet.

Pugh, W. H.—
½ ton buckets used.
Capacity per 10 hours hard coal 800 tons.
Capacity per 10 hours soft coal 600 tons.
Maximum length of boat 350 feet.
Depth of water at dock 17 feet 6 inches.
Storage capacity 24,000 tons.

Racine Fuel Co.—
Capacity per 10 hours 700 tons.
Depth of water at dock 16 feet.

Wisconsin Gas & Electric Co.—
1 Roberts & Schaefer Rig.
Capacity per 10 hours 1,000 tons.
Depth of water at dock 18 feet.
Supt. S. B. Sherman.

RONDEAU, ONT.

Lake Erie Nav. Co., Walkerville, Ont.—
Capacity 10 hours 2,500 tons.
One whirley.
Storage capacity 100,000 tons.
Depth of water at dock 15 feet.
Can handle boats of any length.

SARNIA, ONT.

Imperial Oil Co., Ltd.—
Capacity per day 400 tons.
Depth of water at dock 19 feet.
Maximum length of boat 300 feet.

Northern Navigation Co.—
Capacity per 10 hours 500 tons.
Depth of water at dock 18 feet.
Can handle boats of any length.
Supt. W. J. McCormack.

SANDUSKY, OHIO

Lower Lake Dock Co. (Short Line)—
Car Dump.
Supt. C. C. Hand.

Baltimore & Ohio—
Coal Trestle.

SAULT STE. MARIE, MICH.

Kemp Bros. Coal Co. (Hard Coal Dock)—
Capacity per 10 hours 1,000 tons.
Depth of water at dock 15 feet.

Kemp Bros. Coal Co.—
Capacity per 10 hours 500 tons each.
Depth of water at dock 22 feet.
Maximum length of boat 400 feet.
Can fuel boats of any length.

Perry, Frank—
Capacity per 10 hours 600 tons.
Depth of water at dock 24 feet.
Can handle any size boat.
Supt. Fred Smith.

Union Carbide Co.—
Capacity per 10 hours 1,200 tons.
Depth of water at dock 21 feet.
Maximum length of boat 500 feet.
Supt. John White.

SAULT STE. MARIE, ONT.

Algoma Central Railway Dock—
Capacity per 10 hours 2,000 tons.
Depth of water at dock 22 feet.

Can handle any length boat.
Supt. R. S. McCormick.

Algoma Steel Corporation, Ltd.—
Capacity per 10 hours 4,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. J. A. MacColl.

West Government Dock—
Capacity per 10 hours, 1,000 tons.
Depth of water at dock 18 feet.
Storage capacity 15,000 tons.
300 foot boats.
G. G. Farwell, Pres.

Century Coal Co. (Ltd.)—
Capacity 10 hours 1,000 tons.
Depth of water 21 feet.
Supt. W. F. Gelchriese.

Pittsburgh Coal Co. (Algonquin Dock)—
Dock located above the Locks on the port side.
Capacity per 10 hours 1,800 tons.
Capacity 10 hours 1,800 tons.
Depth of water at dock 19 feet.
Maximum length of boat 400 feet.
Tom F. Folkner, Mgr.

Sault Ste. Marie Gas & Electric Co.—
½ mile east of Carbide Dock.
Capacity per 10 hours 500 tons.
Depth of water at dock 15 feet.
Maximum length boat 250 feet.
Supt. James Trimble.

SHEBOYGAN, WIS.

Sheboygan Coal Co.—
Capacity per 10 hours 700 tons.
Depth of water at dock 18 feet 6 inches.
Maximum length of boat 300 feet.
Supt. Fred Artking.

Reiss Coal Co., C. (Dock No. 1)—
Capacity per 10 hours 8,000 tons.
Depth of water at dock 19 feet.
Supt. L. H. Bullock.

Reiss Coal Co., C. (Dock No. 3)—
Capacity per 10 hours 2,500 tons.
Depth of water at dock 19 feet.

SODUS POINT, N. Y.

Southern Central Ry. Coal Trestle—

SOREL, QUEBEC

Lavelle, Alfred—
Capacity per 15 hours 1,500 tons.

SOUTH CHICAGO, ILL.

By-Products Coke Corporation—
112th Street.
Capacity per 10 hours 10,000 tons.
Depth of water at dock 21 feet.
Maximum length of boat 565 feet.
Supt. Wm. H. Allen, Jr.

Hedstrom & Co., E. L., 95th St.—
Capacity per 10 hours 3,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 525 feet.
Supt. James Kinney.

Lehigh Valley Coal Co., 100th St.—
Capacity per 10 hours small boats 3,000 tons.
Capacity per 10 hours large boats 4,000 tons.
Depth of water at dock 20 feet.
Maximum length of boat 480 feet.
Supt. A. Wallace.

Philadelphia & Reading, 96th St.—
Capacity per 10 hours 2,000 tons.

Illinois Steel Co. (Rail Loading Dock)—
North Slip Dock.
Capacity 2,400 tons in 48 hours.
Depth of water at dock 20 feet.

Pittsburgh Coal Co.—
South of So. Chicago Elevators.
Capacity per 10 hours 800 tons.
Depth of water at dock 22 feet.
Maximum length of boat 300 feet.
Supt. C. H. Wallace.

Illinois Steel Co. (Rail Loading Dock)—
South Slip Dock.
Capacity 2,400 tons in 48 hours.
Depth of water at dock 20 feet.

ST. CLAIR, MICH.

Diamond Crystal Salt Co.—
Capacity per 10 hours 900 tons.
Depth of water at dock 18 feet.
Maximum length of boat 600 feet.
Supt. Fred W. Moore.

Port Huron Salt Co.—
Capacity per 10 hours 200 tons.
Depth of water at dock 14 feet 6 inches.
Maximum length of boat 400 feet.
Supt. L. H. Meno.

STURGEON BAY, WIS.

Green Stone & Quarrying Co.—
Capacity per 10 hours 300 tons.
Depth of water at dock 16 feet.
Maximum beam of boat 38 feet.
Supt. A. O. Green.

Leathem & Smith Towing & Wrecking Co.—
Storage capacity 2,000 tons.
Depth of water at dock 15 feet.
Maximum length of boat 250 feet.
Supt. F. H. Behringer.

SUPERIOR, WIS.

Berwind Fuel Co. Dock No. 1—
Capacity per 10 hours 11,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. W. K. Link.

Carnegie Fuel Co. No. 1 (Old G. N.)—
Capacity per 10 hours 3,000 tons.
Depth of water at dock 21 feet.
Maximum length of boat 700 feet.
Supt. B. McNamara.

Great Lakes Coal & Dock Co. (P. & R.—
Capacity per 10 hours soft coal 2,500 tons.
Can handle boats of any length.
Supt. M. J. Bartelme.

Hanna Dock Co., The M. A.—
Capacity per 10 hours 6,000 tons.
Depth of water at dock 19 feet.
Can handle boats of any length.
Supt. A. E. Botsford.

Island Creek Coal Dock Co., Dock No. 2—
Capacity per 10 hours 2,000 tons.
Depth of water at dock 19 feet.
Can handle boats of any length.
Supt. A. W. Fay.

Lehigh Valley Coal Sales Co.—
Tower Bay Slip.
Capacity per 10 hours hard coal 5,000 tons.
Depth of water at dock 21 feet.
Can handle boats of any length.
Supt. Emil Emmert.

Morton Salt Co.—
Tower Bay Slip.
Capacity per 10 hours 500 tons.
Depth of water at dock 14 to 15 feet.

Northern Coal & Dock Co.—
Capacity per 10 hours 5,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. C. E. Kielley.

North Western Fuel Co., Dock No. 1—
East side of dock.
Capacity per 10 hours 5,000 tons.
West side of dock No. 1.
Capacity per 10 hours 5,000 tons
West side of No. 1.
Capacity per 10 hours 6,000 tons.
Depth of water at dock 21 feet.
Supt. B. A. Galleher.

North Western Fuel Co., Dock No. 2—
Capacity per 10 hours 10,000 tons.
Depth of water at dock 21 feet.
Can handle boats of any length.
Supt. B. A. Galleher.

North Western Fuel Co., Dock No. 3—
Capacity per 10 hours 3,500 tons.
Depth of water at dock 21 feet.
Can handle boats of any length.
Supt. B. A. Galleher.

Philadelphia & Reading Coal & Iron Co.—
Capacity per 10 hours 5,000 tons.
Depth of water at dock 20 feet.
Can handle boats of any length.
Supt. Frank McCreary.

Pittsburgh Coal Co., Dock No. 5—
Capacity per 10 hours 5,000 tons.
Depth of water at dock 21 feet.
Can handle boats of any length.
Supt. W. B. Elliott.

Pittsburgh & Ashland Coal & Dock Co.—
Capacity per 10 hours 2,700 tons.
Storage capacity 150,000 tons.
Depth of water at dock 19 feet.
Maximum length of boat 600 feet.
R. R. connections, G. N., N. P., Omaha, Soo, D. S. S. & A., St.

Reiss Coal Co., C. No. 3 (Pgh. No. 3)—
Capacity per 10 hours 9,000 tons.
Depth of water at dock 21 feet.

Can handle boats of any length.
H. Beck, Mgr.

Superior Manufacturing Co. (Tower Slip)—
Capacity per 10 hours 1,000 tons.
Depth of water at dock 18 feet.
Can handle boats of any length.
Supt. H. E. Speakes.

THREE RIVERS, QUE.

Dominion Coal Co., Ltd.—
Capacity per 10 hours 4,000 tons
Depth of water at dock 40 feet.
Supt. W. C. Haynes.

TOLEDO, OHIO

Asphalt Block Pavement Co. (Sand Dock)—
Capacity per 10 hours 800 tons.
Depth of water at dock 25 feet.
Can handle any size boat.
Supt. George Hayatt.

B. & O. Ry. Co.—
One Car Dump.
Supt. J. W. Kelly.

Hocking Valley—
East Side of River.
2 Brown Hoist Car Dump.
Supt. H. W. Hoey.

Hocking Valley—
East side of river.
2 Brown hoist car dumps.
Supt. V. H. Palmer.

Toledo Fuel Co.—
Magnolia Street Dock.
Depth of water at dock 19 feet.

Toledo Fuel Co.—
Ohio Central Slip.
Depth of water at dock 18 feet.

T. & O. C.—
One Car Dump.
Supt. C. A. Hoyt.

TORONTO, ONT.

Century Coal Co., Ltd.—
Capacity per 10 hours 500 tons.
Depth of water at dock 14 feet.
Supt. F. T. Malone.

Milnes Coal Co., Ltd.—
Capacity per 10 hours 350 tons.
Depth of water at dock 20 feet.
Supt. Arthur Purdue.

Burnes & Co., P.—
Capacity per 10 hours 400 tons.

Toronto Niagara Power Co., Ltd.—
Capacity per 10 hours 400 tons.
Depth of water at dock 14 feet.
Supt. F. Tushingham.

Swift's Coal Dock—
1 McMyler Whirley.
1 ton clam shell used.
Capacity 10 hours 400 tons.
Storage capacity 10,000 tons.
Depth of water 13 feet.
Supt. James Swift, Jr.

Standard Fuel Co., Ltd.—
Church Street Wharf.
Capacity per 10 hours 1,000 tons.

Rogers & Co., Ellas—
Capacity per 10 hours 400 tons.
Depth of water at dock 14 feet.

TRAVERSE CITY, MICH.

Hannah-Lay Co.—
Capacity per 10 hours 250 tons.
Depth of water at dock 14 feet.
Maximum length of boat 300 feet.
Supt. H. Morrison.

TWO HARBORS, MINN.

Duluth & Iron Range Ry. Co.—
Capacity per 10 hours 6,000 tons.
Depth of water at dock 18 feet 6 inches.
Maximum length of boat 460 feet.
Supt. Fred W. Thias.

Duluth & Iron Range Ry. Co.—
Can load 250 cords of pulp per day.
Supt. J. H. Spurbeck.

Duluth & Iron Range Ry. Co.—
540 feet long.

TWO RIVERS, WIS.

Reiss Coal Co., C.—
Capacity per 10 hours 1,000 tons.
Depth of water 16½ feet.
Length of boat 400 feet.
Supt. John Schultz.

WASHBURN, WIS.

Northwestern Fuel Co.—
Capacity per 10 hours 4,000 tons.
Depth of water at dock 21 feet.

Maximum length of boat 525 feet.
Supt. J. W. Gibson.

WAUKEGAN, ILL.

Waukegan Fuel Co.—
Capacity per 10 hours 900 tons.
Depth of water at dock 18 feet.
Maximum length of boat 380 feet.

Reiss Coal Co., C.—
Capacity per 10 hours 1,250 tons.
Depth of water at dock 18 feet 6 inches.
Maximum length of boat 500 feet.
Supt. Thomas Farmer.

Reiss Coal Co., C.—
Capacity per 10 hours 1,800 tons.
Depth of water at dock 18 feet 6 inches.
Maximum length of boat 500 feet.
Supt. Thomas Farmer.

WEST FORT WILLIAM, ONT.

Canadian Northern Railway Co.—
Capacity per 10 hours 1,000 tons.
Depth of water at dock 19 feet 6 inches.
Maximum length of boat 600 feet.
Supt. M. O'Leary.

WIARTON, ONT.

Crown Cement Co., Ltd.—
Capacity per 10 hours 400 tons.
Depth of water at dock 14 feet

Steamship Corporations

Algoma Central Steamship Co., Ltd.	Fleet No.	2
American-Interlake Co.	"	5
American Steamship Co.	"	24
American Steamship Co.	"	204
American Transit Co.	"	4
Argo Steamship Co.	"	8
Arnold Transportation Co.	"	9
Atlas Steamship Co.	"	12
Atlas Transportation Corp.	"	13
Beaver Steamship Co., Ltd.	"	18
Beaver Steamship Co.	"	246
Benton Transit Co.	"	20
Bristol Transit Co.	"	280
Bradley Transportation Co.	"	29
British Columbia Transp., Ltd.	"	31
Brown Steamship Co.	"	32
Brown Transit Co.	"	33
Buffalo Steamship Co.	"	222
Buffalo Tr. Fort Erie S. S. Co., Ltd.	"	38
Calcite Transportation Co.	"	42
Calumet Transportation Co.	"	145
Cameron Steamship Co.	"	44
Cambria Steamship Co.	"	145
Canada Atlantic Transit Co., Ltd.	"	45
Canada Steamship Lines, Ltd.	"	47
Canadian Pacific Car and Passenger Transfer Co.	"	51
Carrollton S. S. Co.	"	55

Castile Transit Co.	Fleet No.	280
Central S. S. Co.	"	59
Central Transportation Co.	"	158
Chatham Navigation Co., Ltd.	"	62
Chicago, Duluth & Georgian Bay Transit Co.	"	67
Chicago Navigation Co.	"	317
Chicago & South Haven Line	"	68
Christopher Steamship Co.	"	317
Cleveland—Erie and S. S. Co.	"	75
Cleveland Transportation Co.	"	76
Cleveland & Buffalo Transit Co.	"	74
Collingwood S. S. Co.	"	81
Crosby Transportation Co.	"	86
Davidson, S. S. Co.	"	86
Davidson Steamship Co.	"	91
Detroit & Windsor Ferry Co.	"	97
Detroit & Cleveland Navigation Co.	"	98
Dominion Transportation Co., Ltd.	"	102
Donner S. S. Co.	"	145
Douglass Transit Co.	"	99
Duluth Steamship Co.	"	323
Dunn Trans. Co., Theodore	"	106
Eastern Steamship Co.	"	145
Empire Steamship Co.	"	32
Erie & Michigan Ry. & Navigation Co.	"	113
Escanaba & Garden Bay Transportation Co.	"	114
Fort Henry Transit Co.	"	280
Franklin Steamship Co.	"	246
Franklin Transp. Co.	"	145
Gartland Steamship Co.	"	317
General Transit Co.	"	122
Georgian Bay Navigation Co.	"	76
Globe Steamship Co.	"	323
Goodrich Transit Co.	"	129
Goshawk Transportation Co.	"	22
Graham & Morton Transportation Co.	"	130

Grand Island Steamship Co.	Fleet No.	72
Great Lakes Steamship Co.	"	134
Great Lakes Towing Co.	"	135
Great Lakes Transit Corporation	"	136
Great Lakes Transportation Co., Ltd.	"	269
Hall Coal & Transportation Co., Inc., Geo.	"	142
Hart Transportation Co.	"	150
Hamilton Transportation Co.	"	144
Hanna Transit Co.	"	280
Headwaters, S. S. Co.	"	33
Hill Steamboat Co.	"	153
Hinckley-Cornwall Forwarding Co,	"	155
Hopkins Transportation Co.	"	22
Hubbard Steamship Co.	"	286
Huron Transportation Co.	"	208
Hydraulic Sand & Transit Co.	"	163
Inland Steamship Co.	"	162
International Transit Co.	"	168
Inter-Lake Auto Transportation Co.	"	166
Inter-State Steamship Co.	"	19
Inter-Ocean Steamship Co.	"	323
Interlake Steamship Co.	"	267
Irondequoit Navigation Co.	"	169
Island Transportation Co.	"	28
Jenkins Steamship Co.	"	171
Jenness Transportation Co.	"	22
Johnstown Steamship Co.	"	145
Karne and Brick Transp. Co., Ltd.	"	174
Kelly Island Lime & Transport Co.	"	179
Keystone Transportation Co. of Canada, Ltd.	"	180
Kinney Steamship Co.	"	182
Kinsman Transit Co.	"	314
Kirkwood, S. S. Co.	"	184
La Belle Steamship Co.	"	145
Lake Erie Excursion Co.	"	189
Lake Ontario and Bay of Quinte Steamboat Co., Ltd...	"	190

Lake Nipissing Shipping & Transp. Co.	Fleet No.	191
Lake Transit Co.	"	297
Lake S. S. Co.	"	89
Lake Shore S. S. Co.	"	194
Lakes and St. Lawrence Transp. Co.	"	266
Lehigh Valley Transportation Co.	"	197
Lewis Ferry Co., Ltd.	"	198
Limestone Transportation Co.	"	29
Livingstone S. S. Co.	"	86
Mahoning Steamship Co.	"	145
Marquette & Bessemer Dock & Nav. Co.	"	203
Masaba Steamship Co.	"	295
Matthews Steamship Co., Ltd.	"	214
Mentor Transit Co.	"	280
Merchants Transportation Co.	"	215
Merrimac Steamship Co.	"	33
Miller Transit Co.	"	280
Milwaukee-Western Steamship Co.	"	317
Montreal Transit Co.	"	280
Montreal Transportation Co., Ltd.	"	224
Montreal & Cornwall Navigation Co., Ltd.	"	225
Morrow S. S. Co.	"	73
McQueen Tug and Transit Co.	"	211
Maid of the Mist Steamship Co., Ltd.	"	202
Marine Navigation Co., Ltd.	"	213
Muskoka Lakes Nav. and Hotel Co., Ltd.	"	230
National Steamship Co.	"	323
National Steamship Co.	"	209
National Transit Co.	"	231
Nessen Transportation Co.	"	234
New Ontario Trans. Co.	"	235
Niagara Navigation Co., Ltd.	"	236
Niagara, St. Catherines & Toronto Nav. Co., Ltd.	"	237
Nicholson Transit Co.	"	238
Nipigon Transit Co.	"	239
North Bay & French River Transit Co.	"	242

North Shore Transit Co.	Fleet No.	243
Northern Navigation Co., Ltd.	"	47
Norton Transit Co.	"	280
O'Connor Steamship & Hotel Co., Ltd.	"	244
Ogdensburg S. S. Co.	"	247
Ontario Car Ferry Co., Ltd.	"	249
Ontario Trading Co.	"	251
Ontario Transp. & Pulp Co., Ltd.	"	252
Oswego Navigation Co.	"	224
Ottawa Transit Co.	"	280
Ottawa Transportation Co., Ltd.	"	53
Page Transportation Co.	"	22
Paisley S. S. Co.	"	73
Pelee & Lake Erie Nav. Co., Ltd.	"	259
Pembroke Transportation Co.	"	260
Pennsylvania & Ontario Transportation Co.	"	263
Peninsula Tug & Towing Co., Ltd.	"	262
Peninsular Steamboat Co.	"	261
Pere-Marquette, S. S. Co.	"	265
Pioneer Steamship Co.	"	162
Pittsburgh Steamship Co.	"	268
Postal. Steamship Co.	"	17
Potter-Teare Transit Co.	"	271
Portage Lake Steamship Co.	"	199
Presque-Isle Transportation Co.	"	72
Pringle Barge Line Co.	"	272
Producers S. S. Co.	"	145
Pt. Huron & Sarnia Ferry Co.	"	273
Quebec & Port Levis Ferry Co., Ltd.	"	275
Reiss Steamship Co.	"	278
Republic Transportation Co.	"	145
Rideau Lakes, Navigation Co., Ltd.	"	282
Richland Steamship Co.	"	281
River Transit Co.	"	208
Rochester, S. S. Co.	"	24
Saginaw Bay Transportation Co.	"	286

Sandusky & Island Steamship Co.	Fleet No.	291
Sarnia Toledo Transit Co., Ltd.	"	49
Shenango Steamship Co.	"	[illegible]
Shenango Steamship & Transportation Co.	"	29[illegible]
Silver Islet Nav. Co., Ltd.	"	299
St. Joe Island & Soo Line, Ltd.	"	308
St. Joseph & Chicago S. S. Co.	"	310
St. Lawrence Coal & Freighting Co.	"	311
St. Lawrence Transportation Co.	"	312
Spokane Steamship Co.	"	307
Superior Steamship Co.	"	32[illegible]
Triton Steamship Co.	"	32[illegible]
Tri State Steamship Co.	"	3[illegible]
Toronto, Hamilton & Buffalo Nav. Co.	"	[illegible]
Twin City Transportation Co.	"	245
United States & Dominion Trans., Co.	"	329
Valley Steamship Co.	"	19
Victoria Navigation Co., Ltd.	"	333
Virginia Steamship Co.	"	145
Webster Steamship Co.	"	336
Western S. S. Corporation	"	338
White Star Line	"	341
Wilson Transit Co.	"	346
Windsor & Pelee Island S. S. Co., Ltd.	"	349
Wyandotte Transportation Co.	"	354
Yosemite Transit Co.	"	280
Zenith Steamship Co.	"	323
Zillah Transportation Co.	"	22

GENERAL DIMENSIONS OF L VESSELS

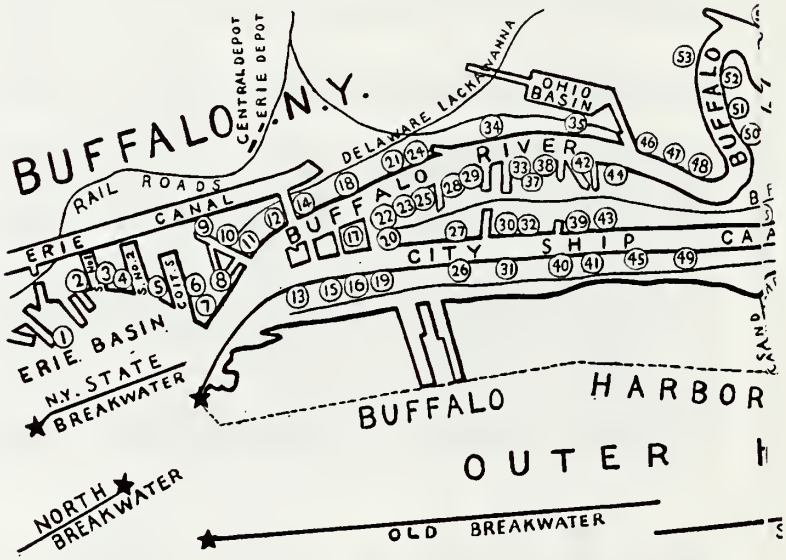
Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel Length	Dimensions: Beam	Dimensions: Depth	No. Hatchs	No. Comp.	Year Built
	Steamers										
146	Aberdeen (Can.) ...	142	87	Wood.		99'6"	22'	8' 7"			1894
323	Adams, Cuyler	5785	4497	Steel.	8300	474'	52'	29'	28	3	1904
267	Adriatic	4945	3605	Steel.	7300	420'	52'	28'	23	4	1907
224	Advance (Can.)	1031	769	Wood.	1200	175'	35' 3"	15'	4	1	1884
145	Agassiz, R. L.	6530	4910	Steel.	10200	532'	56'	31'	32	3	1907
2	Agawa (Can.)	3759	2468	Steel.	5400	376'	46'	26'	10	3	1902
222	Agnew, William C. .	6533	4985	Steel.	10300	532'	58'	31'	30	3	1911
228	Alaska (Can.)	986	592	Iron..	1500	212'	32'	13' 5"	5		1871
136	Allegheny	3898	2967	Steel.	5000	350'	46'	30'			1910
354	Alpena	2886	1787	Steel.	3400	356'	47'	26'	18	3	1909
330	Amaranth	774	....	Steel.	....	150'	28'	14'			1892
162	Amazon	3702	2680	Steel.	5700	376'	46'	26'	11	3	1897
145	Amberg, Wm. A. ...	7031	....	Steel.	10500	525'	58'	31'	32	3	1917
47	Ames, A. E. (Can.) .	1637	....	Steel.	1800	246'	37'	24'	5	2	1903
72	Andaste	1573	1256	Steel.	3000	266'	38'	22'	7	1	1892
314	Andrews, Matthew .	7014	5497	Steel.	10200	532'	56'	31'	33	3	1907
72	Angeline	4690	....	Steel.	6800	414'	50'	28'	13	4	1899
200	Annie Laura	244	189	Wood	425	133'	24' 6"	10' 7"	3	1	1871
224	Arabian (Can.)	1073	770	W.&S.	1200	178'6"	31'	13' 6"		1	1892
267	Arcturus	7159	5744	Steel.	9600	514'	54'	31'	16	4	1906
8	Argo	721	490	Wood	1200	192'	35'	12' 8"	5	1	1895
267	Argus	4444	....	Steel.	6800	408'	50'	28'	22	4	1898
245	Arizona	765	601	Wood	1100	189'4"	32' 6"	13' 4"	5	1	1868
182	Ashley, J. S.	6361	4789	Steel.	9500	504'	54'	30'	30	4	1909
330	Aspen	277	....	Steel.	....	118'	25'	12'			1906
224	Atikoken (Can.) ...	2004		Steel.	3100	308'	38'	24'	8	2	1895

	Steamers										
302	Atlantis	197	106	Wood.	300	109'2"	23' 2"	8'			1887
162	Augustus, A. A.	6390	4869	Steel.	9500	504'	54'	30'	30	4	1910
162	Australia	3845	2877	Steel.	5700	376'	48'	26'	11	3	1897
34	Aztec	834	653	Wood	1100	180'	33' 3"	13'10"			1889
	Barges										
353	Acacia	188		Wood.	300	102'	20'	9'			1873
105	Acadia (Can.)	375		Wood.	700	150'	26' 5"	11' 5"			1875
141	A—D (Can.)	462		Wood.	700	147'	30' 1"	13' 4"			1899
253	Albin (Can.)	149	....	Wood.	300	110'	22' 8"	7' 3"			1888
100	Alice (Can.)	248	....	Wood.	500	120'7"	25' 8"	12' 9"			1892
103	Aloha (Can.)	517	....	Wood.	1000	171'2"	32'	12'	5		1888
61	Amarine (Can.)	131	....	Wood.	250	106'6"	23' 2"	7' 2"			1908
248	Andrews, Abbie L. (Can.)	278	264	Wood	500	136'	26'	12'			1873
22	Arthur	937	891	Wood.	1800	217'	35' 3"	14' 8"	8	1	1871
257	Arthur (Can.)	350	326	Wood.	600	148'	26'	11' 3"			1893
13	Ashland	991	956	Wood.	1800	218'4"	37' 8"	15'			1886
13	Atlasco (Can.)	788		Wood.	1500	218'	32' 6"	14' 6"		8	1881
13	Auger Antoine (Can.)	365		Wood.	700	151'	26'	11' 2"			1875
13	Augustus (Can.)	802		Wood.	1500	177'5"	39' 6"	15'			1893
227	Aurora	2236	2181	Wood.	3200	290'	41'	21' 6"		1	1887
	Steamers										
268	Baker, Geo. F.	7210	5459	Steel.	11500	580'	58'	32'	36	3	1907
323	Ball Brothers	5733	4438	Steel.	8700	480'	52'	30'	28	3	1905
323	Ball, Frank C.	6909	5459	Steel.	10000	530'	56'	31'	31	3	1906
17	Barlum, John J.	6419	4924	Steel.	9500	504'	54'	30'	30	4	1909
17	Barlum, Thomas	5752	4485	Steel.	8500	480'	52'	30'	28	3	1908
323	Barnum, G. G.	6272	4826	Steel.	9500	504'	54'	30'	30	3	1905
83	Barth, L. L.	683	491	Wood.	900	185'	35'	13' 8"			1889

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
47	Beaverton (Can.) ..	2011	....	Steel.	3000	249′	42′	24′	3		1903
134	Belgium	3860	....	Steel.	5700	370′	48′	28′	11	4	1902
246	Berry, B. F.	6188	6188	Steel.	8500	480′	52′	30′	28	4	1908
268	Bessemer, Sir Henry	4321	3293	Steel.	6700	412′	48′	28′	12	4	1896
47	Bickerdike (Can.) ..	515	864	Comp.	1250	222′	34′	25′ 6″	6	3	1873
307	Bielman, C. F.	2056	1709	Wood.	3000	291′	41′	19′ 8″	8	1	1892
21	Bielman, C. F., Jr...	33	23	Steel.		67′6″	14′	7′ 3″			1907
162	Billings, Frank	5494	....	Steel.	8500	444′	56′	30′	25	3	1910
317	Bixby, W. K.	5712	4407	Steel.	8500	480′	52′	30′	14	3	1906
268	Black, Clarence A..	4521	3474	Steel.	6900	414′	50′	28′	13	4	1898
145	Black, H. F.	....	....	Steel.	9500	504′	54′	30′	16	4	1916
162	Block, Joseph	6486	4939	Steel.	10800	549′	56′	31′	34	4	1907
24	Boland, John J.	4924	4530	Steel.	8700	480′	54′	30′	14	3	1907
24	Booth, Edwin L. ...	4626	3584	Steel.	7000	412′9″	51′ 6″	28′	11	4	1901
136	Boston	4184	3283	Steel.	5000	350′	48′	30′		5	1913
167	Boyce, I. J.	368	316	Wood.	550	138′	29′ 6″	11′	3	1	1889
252	Boyce, Mary H.	700	476	Wood.	1200	181′4″	34′ 2″	14′	4	1	1888
29	Bradley, C. D.	....	....	Steel.	10000	530′	60′	31′	30	3	1917
22	Bradley, Charles H.	804	624	Wood.	1200	201′	37′	13′ 6″	4	1	1890
33	Bradley, M. A.	5539	4127	Steel.	8200	460′	52′	30′	13	4	1908
274	Brittan, R. C. (Can.)	200	149	Wood.	300	142′	24′	8′			1877
19	Brower, A. G.	3582	2778	Steel.	5400	346′	48′	28′	10	4	1902
33	Brown, Fayette	6377	....	Steel.	9500	504′	54′	30′	30	4	1910
33	Brown, Harvey H...	6634	....	Steel.	10500	532′	58′	31′	31	3	1908
32	Brown, J. J. H.	5069	3787	Steel.	7400	432′	52′	28′	24	4	1908

	Steamers											
145	Brown, Wm. L.	4904	3879	Steel.	7300	430′	50′	28′ 6″	24	3	1901
19	Brown, W. W.	3582	2778	Steel.	5400	346′	48′	28′	10	4	1902
231	Buckley, Edward ...	414	313	Wood.	450	154′3″	31′ 7″	10′ 6″			1891
245	Buel, F. R.	951	743	Wood.	1500	194′	35′ 6″	13′ 9″	5		1888
136	Buffalo	3951	3272	Steel.		381′	50′	29′			1899
268	Buffington, Eugene J.	7528	5839	Steel.	11500	580′	58′	32′	36	3	1909
268	Bunsen, R. W. E. ...	5181	4012	Steel.	7400	446′	50′	29′ 6″	14	4	1900
1	Burnham, Geo.	332	219	Wood.	600	149′	29′	10′ 1″	3		1872
162	Butler, Joseph G., Jr.	6588	5174	Steel.	10000	525′	55′	31′	32	3	1905
278	Byers, A. M.	6364	4841	Steel.	9500	504′	54′	30′	30	4	1910
	Barges										
224	Bacon, M. S.	614	....	Wood.	1200	182′	33′ 6″	13′ 6″	6	1	1874
272	Barlum, J. J.	1184	1125	Wood.	2100	234′	40′ 8″	16′	13		1890
147	Beechland (Can.) ..	420	....	Wood.	800	170′5″	35′	12′ 9″			1917
268	Bell, Sir Isaac L. ...	3418	3158	Steel.	5700	366′	44′	26′	11	3	1896
253	Blackburn, R. S. (Can.)	208	....	Wood.	400	122′1″	24′ 1″	8′ 6″			1907
148	Bloom, Nelson	549	521	Wood.	950	197′7″	31′ 2″	11′ 3″	6	1	1863
253	Booth, John R.(Can.)	179	....	Wood.	....	113″	24′ 2′	7′ 8″			1911
286	Bottsford, Rhoda ...	499	474	Wood.	850	167′1″	32′ 9″	10′ 3″	5	1	1881
188	Brainard, K. (Can.).	398		Wood.	800	169′8″	30′	10′			1871
253	Bremmer, E.R.(Can.)	179	....	Wood.	325	113′	24′ 2″	7′ 8″			1912
224	Brighton (Can.)	634	607	Wood.	1000	179′6″	34′ 7″	11′ 4″			1897
22	Brightie	600	570	Wood.	1000	182′	33′ 2″	13′	5	1	1868
47	Brookdale (Can.) ..	1067	....	Wood.	2100	213′	39′ 8″	16′ 8″			1888
63	Brown, Belle	217	207	Wood.	375	124′6″	27′ 4″	9′ 3″			1873
253	Brunette (Can.)	163	....	Wood.	....	108′	24′	8′			1899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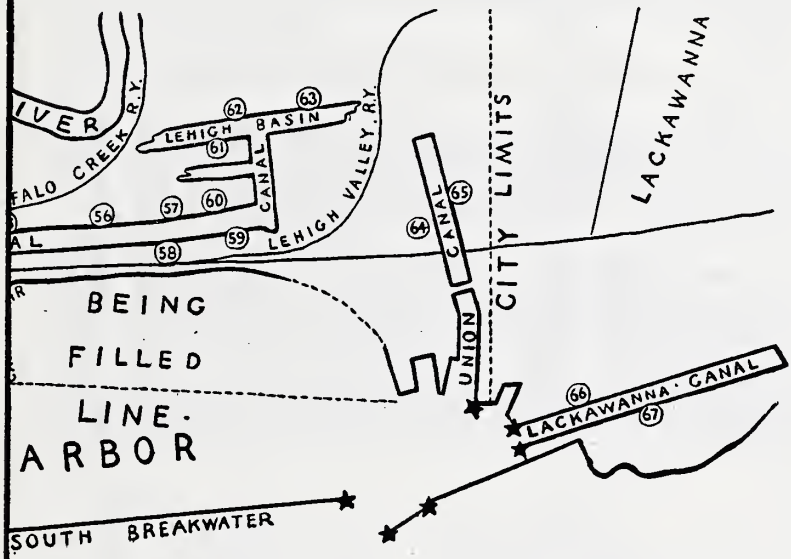
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GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year built
	Barges										
268	Bryn Mawr	4294	3853	Steel.	7500	400′	50′	27′	13	3	1900
87	Buckeye State	518	492	Wood.	900	171′	32′ 7″	11′ 5″			1873
253	Burstell, J. (Can.) ..	191			350	119′7″	24′ 1″	8′			1908
216	Butman, Myron	424	403	Wood.	800	164′3″	31′ 2″	10′ 2″			1885
13	Burma (Can.)	884	885	Wood.	1200	183′6″	39′ 5″	15′	6	1	1901
	Steamers										
47	Cadillac (Can.)	1263	1068	Steel.	2300	230′	37′	19′	8	1	1892
72	Cadillac	4308	....	Steel.	6300	380′	50′	28′	11	4	1902
328	Cadwell, C. W.	592	212	Steel.	Sand	152′	36′	10′ 6″			1911
42	Calcite	3996	2459	Steel.	5500	416′	54′	29′	20	3	1912
47	Calgarian (Can.) ...	2326	1301	Steel.	3000	244′6″	42′ 6″	26′ 6″	6	3	1912
267	Calumet	4928	3673	Steel.	7300	420′	52′	28′	23	4	1907
267	Campbell, J. A.	7316	....	Steel.	10200	525′	58′	31′	32	3	1913
328	Canisteo	595	539	Wood.	Sand	182′2″	34′ 3″	12′ 2″	4		1886
348	Canobie (Can.)	1748	1051	Wood.	2200	252′	38′	21′			1887
267	Canopus	4978	3770	Steel.	8200	464′	50′	28′	14	4	1905
311	Carter, W. J.	235	171	Wood.	450	122′	28′	9′ 6″			1886
224	Cataract (Can.)	839		Wood.	900	175′	23′ 6″	14′ 6″			1882
73	Central West	3400	....	Steel.	5200	352′	45′	26′	10	3	1895
267	Cepheus	4551	3451	Steel.	6900	416′	50′	28′	12	4	1903
267	Cetus	4720	3282	Steel.	6900	416′	50′	28′	12	4	1903
320	Chamberlin, C. W. (Can.)	385	243	Wood.	350	127′	26′ 6″	9′ 7″			1881
136	Chicago	3195	2546	Steel.		325′	44′	28′			1901

	Steamers										
187	Chipman, Susie	216	164	Wood.	300	122′	26′	9′ 5″			1885
177	Chisholm, Jr., Alv. S.	478	259	Wood.	600	150′	35′	8′			1900
151	Christie, T. S.	517	471	Wood.	800	160′	30′ 3″	12′	4	1	1885
317	Christopher	132	...	Wood.	225	93′	21′	8′ 9″	3		1872
297	City of Bangor	4260	3137	Steel.	6400	410′	48′	28′	12	4	1901
211	City of Dresdn(Can.)	4202	3058	Steel.	6600	445′	44′ 6″	27′ 8″	13	4	1896
193	City of New York (Can.)	292	199	Wood.	500	136′	27′ 6″	11′ 6″			1863
267	Clarke, E. A. S.	5780	....		10200	532′	56′	30′	32	3	1907
222	Clement, S. M.	5821	4487	Steel.	8500	480′	52′	30′	28	3	1905
268	Clemson, D. M.	....	....	Steel.	1800	217′	37′	15′	5	1	1889
214	Clifton (Can.)	....	....	Steel.	12000	560′	60′	32′	35	3	1916
214	Clinton	124	62	Wood.	300	96′	25′	6′ 2″			1898
99	Colborn, A. R.	251	207	Wood.	400	129′9″	28′	9′ 6″	2	1	1882
268	Cole, Thomas F. ...	7268	5484	Steel.	11500	585′	58′	32′	35	3	1907
336	Colin, W. (Can.) ...	1549	....	Wood.	1500	256′	36′ 6″	19′ 3″	..	.	1881
268	Collins, E. C.	4787	....	Steel.	6860	416′	50′	28′	12	4	1904
47	Collinwood (Can.) .	4314	3285	Steel.	6300	386′	50′	28′	11	4	1908
280	Colonel	3879	3044	Steel.	5700	356′	50′	28′	10	3	1901
247	Columbia	1373	....	Wood.	2100	235′4″	35′ 6″	18′ 9″	6	1	1881
164	Commerce	112		Wood.	....	99′	19′	6′			1878
164	Commodore	2082	1927	Wood.		265′	42′	24′ 6″			1875
141	Compton (Can.) ...	1530	936	Wood.	2100	235′	36′	25′	6	1	1882
136	Conemaugh	3898	2967	Steel.	5000	350′	46′	30′			1909
86	Conestoga	1726	1562	Wood.		252′	36′	26′ 3″			1878
354	Conneaut	4749	....	Steel.	6000	416′	56′	30′	21	3	1916
136	Cooke, Delos W. ...	3398	2067	Steel.	4300	325′	44′	28′			1897
268	Coralia	4330	3351	Steel.	6000	412′	48′	28′	12	4	1896
268	Corey, Wm. E.	6363	5045	Steel.	10500	549′	56′	31′	33	2	1905
24	Cornelius, Adam E..	4900	3736	Steel.	7300	420′	52′	28′	12	3	1908

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
268	Cornell	5082	3986	Steel.	7500	454′	50′	28′ 6″	14	6	1900
268	Cort, Henry	2234	1571	Steel.	3500	320′	42′	25′	8	1	1892
101	Corunna (Can.)	1256	775	Steel.	2000	230′	34′	21′		4	1891
267	Corvus	4551	3451	Steel.	6900	416′	50′	28′	12	4	1903
134	Coulby, Harry	6495	4939	Steel.	10500	549′	56′	31′	34	3	1906
309	Cowan, Wm. P.	5429		Steel.		420′	55′	28′			1918
134	Cowle, John B.	6614	5134	Steel.	10000	525′	58′	31′	31	3	1910
268	Crawford, Geo. G.	7971	6096	Steel.	12000	585′	60′	32′	36	4	1907
145	Crawford, W. D.	6385	4899	Steel.	9500	504′	54′	30′	16	4	1914
268	Crescent City	4213	3675	Steel.	5800	406′	48′	28′	12	4	1897
267	Crete	6189	4764	Steel.	8500	480′	52′	30′	28	4	1907
330	Crocus	626		Steel.	....	155′	29′	14′			1904
19	Curry, S. S.	3931	2901	Steel.	6500	432′	45′	26′	13	4	1893
33	Croft, Henry W.	6223	....	Steel.	10000	504′	58′	30′	15	3	1908
267	Cygnus	4725	3393	Steel.	6900	416′	50′	28′	12	4	1903
	Barges										
238	Calkins, Bertie (Can.)	227		Wood.	450	134′	28′	9′			1874
49	Calvert, W. S. (Can.)	543		Wood.		191′	29′	14′ 4″			1874
13	Carney, Fred	361	342	Wood.	700	152′2″	30′ 4″	10′ 6″			1883
6	Carrier	187	177	Wood.	375	123′	26′	8′ 6″			1865
216	Carpenter, A. A.	540	524	Wood.	1000	165′6″	33′	12′ 2″			1881

268	Carrington	3180	2861	Steel.	5500	352'	44'	26'	11	3	1897
13	Case, J. I.	827	786	Wood.	1400	208'	34' 6"	14' 6"	6		1874
131	Casey, Lyman (Can.)	277		Wood.	550	136'	26'	13'			1867
84	Chamkly	218		Wood.	400	154'	24' 8"	7'			1871
272	Chattanooga	2339	2266	Wood.	4000	308'	45'	21' 6"	10	3	1898
71	Chieftain	2704	2692	Wood.	4900	342'	46'	21' 6"	11	1	1902
204	Coates, L. B.	189	179	Wood.	350	116'1"	25' 6"	8' 1"			1874
172	Clint, D. K.	729	692	Wood.	1200	168'6"	32'	18' 8"			1872
14	Cobalt (Can.)	307		Wood.	606	146'6"	26' 6"	11' 4"			1873
224	Cobourg (Can.)	607		Wood.	1200	179'6"	34' 7"	11' 4"			1897
267	Constitution	3847	3629	Steel.	6500	438'	44'	26'	14	4	1897
140	Cook, Mary Ellen ..	152	126	Wood.	300	118'	25' 6"	8'			1875
253	Core, R. M. (Can.) ..	168		Wood.	300	112'8"	24'				1904
340	Cram, J. L.	546		Wood.	1000	186'8"	31' 9"				1881
268	Corliss, Geo. H.	3259	3124	Steel.	5500	352'	44'	26'	11	3	1896
316	Corning, Ida	444	422	Wood.	800	168'	31' 3"	10' 9"			1881
326	Corry, Mike	380	361	Wood	650	153'6"	29' 3"	10' 8"			1874
215	Coresands (Can.) ..	276		Wood.		137'	26'	11' 1"			1873
54	Coteau (Can.)	411		Wood.	600	157'6"	27'	11'			1897
59	Crete	2083	....	Wood.	3400	288'6"	44' 6"	19' 1"	8	1	1897
71	Cutler, Dwight G. ..	468	468	Wood	1100	165'	36'	12'			1897
178	Cyrenian (Can.) ...	376	293	Wood.	700	135'	26'	10' 6"			1879
	Steamers										
44	Dahlke, H.	442	374	Steel.	Sand	152'	34' 6"	10' 6"			1908
267	Dalton, H. G.	7810	6692	Steel.	12000	580'	60'	32'			1916
323	Davidson, James E.	6206	4943	Steel.	9500	504'	54'	30'	30	3	1905
24	Davidson, Louis R...	6356	4996	Steel	9700	504'	56'	30'	30	4	1912
86	Davidson, Thomas .	2226	1714	Wood	3000	286'	41' 6"	20' 4"	8		1888
267	Davock, Wm. B.	4468	3246	Steel.	7200	420'	52'	28'	12	4	1907
5	Dawson, Sir Trevor	7215	....	Steel.	11500	580'	58'	32'	36	3	1911
136	Delaware	3901	3250	Steel.		350'	46'	30'			1905

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel Length	Dimensions: Beam	Dimensions: Depth	No. Hatchs	No. Comp.	Year Built
	Steamers										
134	Denmark	5448	4434	Steel	8400	440'	56'	28'	24	4	1909
141	Derbyshire, Senator (Can.)	1246	987	Wood	2200	220'	40'	18'	6	1	1897
268	Dickson, Wm. D. ...	7568	5712	Steel.	11500	580'	58'	32'	36	3	1910
317	Dimmick, J. K.	4651	3547	Steel.	6800	423'	51'	28'	13	4	1900
268	Dinkey, Alva C.	7514	5822	Steel.	11500	580'	58'	32'	36	3	1909
19	Donaldson, John A..	4315	3110	Steel.	6300	380'	50'	28'	20	3	1908
296	Donaldson, J. P. ...	521	425	Wood.	700	185'	30' 4"	12'	4	1	1880
145	Donner, W. H.	6311	4843	Steel.	9500	504'	54'	30'	16	4	1914
47	Doric (Can.)	2359	1452	Steel.	2800	247'	43'	25' 5"	6	2	1903
124	Douglas	230	123	Wood.	225	120'3"	22'10"	8' 6"			1882
104	Doville, R. E.	199	135	Steel.		116'	28'	7'			1905
136	Duluth	4623	3785	Steel.		381'	50'	30'			1903
317	Dunham, James S...	4795	....	Steel.	7300	420'	52'	28'	23	4	1906
134	Dunn, John, Jr.	6160	4802	Steel.	10000	504'	58'	30'	15	3	1907
134	Durston, J. F.	4791	3500	Steel.	7800	432'	52'	28'	23	3	1908
	Barges										
224	Dakota (Can.)	516		Wood.	1000	170'4"	30' 6"	11' 9"			1885
305	Davis, Lyman M. ..	198		Wood.	350	123'	27' 2"	9' 4"			1873
224	Dorrie, Geo. T.(Can.)	680		Wood.	1300	177'5"	35'	12' 5"			1898
125	Day, Eliza	139	132	Wood.	250	97'6"	25' 6"	8' 4"			1869
296	Dayton	462	439	Wood.	650	184'2"	30'	9' 8"	4	1	1871

22	Delaware	524	487	Wood.	1000	173'6'	30' 4"	13'	5	1	1868
276	Dobbins, D. P.(Can.)	447		Wood.	900	162'3'	31' 6"	12' 2"			1863
224	Dorchester (Can.) ..	375		Wood.	600	146'5"	27' 1"	11' 1"			1876
224	Dunmore (Can.) ...	675	590	Wood.	1100	182'5"	34' 9"	11' 9"			1895
	Steamers										
268	Eads, James B.	3746	2970	Steel.	5000	400'	42'10"	28'	12	3	1894
246	Earling, E. J.	6657	5140	Steel.	10000	525'	55'	31'	32	3	1906
214	Easton (Can.)	1757	1129	Steel.	2800	250'	42' 6"	18' 6"	6	3	1912
268	Edenborn, Wm.	5910	4531	Steel.	8300	478'	52'	30'	15	6	1900
47	Edmonton (Can.) ..	1982	1340	Steel.	3000	249'	42' 8"	23'	6	3	1906
267	Elba	4963	3621	Steel.	7300	420'	52'	28'	23	4	1907
145	Elphicke, Mary C...	4904	3879	Steel.	7300	430'	50'	28' 6"	24	3	1901
218	Ellen	349	194	Wood.	Sand	120'	30' 6"	8'			1893
268	Ellwood, Isaac L. ..	5904	4526	Steel.	8300	478'	52'	30'	15	6	1900
47	Emperor (Can.)	7031		Steel.	10000	525'	56'	31'	30	5	1911
268	Empire City	4118	3268	Steel.	6300	405'	48'	28'	12	4	1897
336	Eric, W. (Can.)	1183		Wood.	1500	224'7"	35' 4"				1882
268	Ericsson, John	3200	2378	Steel.	5800	390'	48'	27'	11	4	1896
	Barges										
242	Eddy, John F.	1678	1252	Wood.	2600	259'	37' 6"	20'			1886
245	Edwards, J. R.	435	413	Wood.	800	175'2"	30' 6"	12' 2"	5	1	1883
118	Ewen, Frank D. (Can.)	882		Wood.	1750	202'	37'	16'			1888
108	Edgewood (Can.) ..	699		Wood.	1200	191'1"	36' 8"	15' 5"			1918
48	Edith (Can.)	353		Wood.	600	130'	27'	11'			1897
54	Empire (Can.)	768		Steel.	160	40'	12'				1906
111	Empire No. 1 (Can.)	518		Wood.	1006	170'	31' 5"	12' 4"			1880
224	Ethel (Can.)	399		Wood.	600	158'	27' 9"	11'			1897

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
47	Fairfax (Can.)	1424	984	Wood.	2100	209′	38′	19′			1890
268	Fairbairn, Sir Wm.	4219	3181	Steel.	6000	414′	45′ 6″	28′	12	4	1896
268	Farrell, James A. ..	7705	5967	Steel.	11500	580′	58′	32′	34	3	1912
135	Favorite (Wrecker).			Steel.		173′	40′	16′			1919
238	Fellowcraft	2070		Wood.	2800	256′	40′	21′ 6″	9		1888
268	Filbert, Wm. J.	7962	6189	Steel.	12000	585′	60′	32′	36	4	1907
110	Fitzgerald, R. P. ...	1681	1175	Wood.	2300	256′	38′	20′	7	1	1887
317	Fitzgerald, Wm. E...	5300	3701	Steel.	7300	420′	52′	28′	23	4	1906
343	Fleetwood	1687	1175	Wood.	2300	265′6″	40′ 6″	19′ 4″			1887
141	Follette, James W. .	756	538	Wood.		212′3″	35′ 6″	12′	5	1	1881
246	Ford, Emory L.	7986	....	Steel.	12000	580′	60′	32′	35	.	1916
239	Ford. J. C.	609	710	Wood.	950	172′	33′	12′	4	1	1889
274	Foster, Parks	1729	1475	Steel.	2900	262′	38′	23′	7	3	1889
316	Foster, I. N.	355	277	Wood.	500	134′9″	26′	11′ 6″			1872
2	Franz, W. C. (Can.)	3428	2029	Steel.	5600	346′	48′	28′	10	3	1901
145	French, G. Watson.	3883	2725	Steel.	5600	356′	50′	28′	18	3	1903
268	Frick, Henry C.	6490	5016	Steel.	10500	549′	56′	31′	34	2	1905
92	Fryer, Robt.L.(Can.)	1810	1451	Wood.	3100	281′	41′ 4″	20′	8	1	1888
268	Fulton, Robert	4219	3181	Steel.	6000	414′	45′ 6″	28′	12	4	1896
	Barges										
115	Filer, Grace M. (Can.)	215		Wood.	450	128′	27′	9′			1874
118	Filmore, C. J.	410	389	Wood.	750	161′	31′	10′ 3″	4	1	1839

145	Fitch, W. F.	3629		Steel.	5000	346′	48′	28′	10		1902
253	Fitch, Edson (Can.)	171		Wood.	300	120′	24′	7′ 9″			1904
90	Ford River (Can.) ..	299		Wood.	550	143′	29′	10′ 8″			1879
106	Francombe, J. A. ...	658	625	Wood.	1300	180′	36′	13′	5	1	1889
25	Freeport (Can.)	373		Wood.	650	137′	26′	12′			1873
268	Fritz, John	4693	4447	Steel.	7900	436′	50′	28′ 6″	15	4	1898
158	Fryer, Robt. L.	521	501	Wood.	1000	175′	33′ 3″	11′ 3″	5	1	1880
	Steamers										
268	Gary, Elbert H.	6331	4988	Steel.	10500	549′	56′	31′	34	2	1905
346	Garretson, General .	6765	5371	Steel.	9600	520′	54′	31′	16	4	1907
268	Gates, John W.	5946	4440	Steel.	8300	478′	52′	30′	15	6	1900
321	Gladstone	2453	1913	Wood.	3000	283′	40′	23′			1888
269	Glenisla (Can.)	....	....	Steel.	7000	416′	50′	29′	12	8	1903
269	Glenlivet (Can.) ...	1860	1089	Steel.	2700	266′	38′	24′	8	3	1891
269	Glenlyon (Can.)	2759	1645	Steel.	3000	328′	42′	25′	9	3	1893
184	Glen Allen (Can.) ..	276		Wood.		112′8″	26′ 4″	8′ 5″			1912
269	Glenbar (Can.)			Steel.	3200	274′	40′	24′ 4″	7		1890
269	Glencadam (Can.) ..			Steel.		244′	43′	21′	6		1913
269	Glencairn (Can.) ...			Steel.	3000	266′	41′	25′ 6″			1893
269	Glenfinnan (Can.) ..	2400		Steel.	3006	324′	42′	23′ 9″	10		
224	Glenmount (Can.) .	2111	....	.....	3300	302′	40′	21′ 5″	9	8	1887
269	Glenshee (Can.) ...	5667	....	Steel.	9000	480′	54′	30′	14	3	1903
269	Glenstriven (Can.) .			Steel.	3200	274′	41′ 6″	24′ 4″	7		1889
54	Gogebic	1680	1312	Wood.	2500	275′	40′ 4″	19′ 6″	7	1	1887
222	Goodyear, Frank H..	....	....	Steel.	12000	580′	60′	32′	35	3	1917
280	Goulder, Harvey D.	6617	5219	Steel.	9700	525′	55′	31′	32	3	1906
19	Grammer, G. J.	4471	3703	Steel.	6600	434′	48′	28′	13	5	1902
72	Grand Island	5630	....	Steel.	8500	480′	52′	30′	14	4	1905
106	Green, C. H.	694	504	Wood.	950	192′6″	33′	12′ 8″	4	1	1881
113	Greene, M. T.	523	422	Wood.	750	155′	30′	11′ 6″	4	1	1887
60	Griffin	1879	1526	Steel.	2700	266′	38′	24′	8	3	1891

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
36	Groh, Mary	139	69	Wood	Sand	112′	22′	8′			1873
44	Gunnell, E.	688	468	Steel.	Sand	170′	36′	10′			1912
	Barges										
224	Gaskin, John (Can.)	521	487	Wood.	900	165′8″	31′ 4″	12′			1881
195½	Gawn, Thomas	549	522	Wood.	1000	170′8″	31′ 7″	13′ 6″	6	1	1872
208	Genoa	730	694	Wood.	1200	188′9″	34′ 1″	13′ 2″	5	1	1873
58	Geoger, F. A. (Can.)	825	784	Wood.	1500	200′6″	35′ 4″	15′			1874
141	Gladys H. (Can.) ..	1045	....	Wood.	1700	211′	34′ 8″	16′ 9″			1892
224	Godfrey, Jermiah ..	653	620	Wood.	1250	177′	34′ 9″	14′	6	1	1881
272	Golden Age	1846	1763	Wood.	3100	278′	37′ 8″	20′	8	1	1882
31	Goldman, Celina K. (Can.)	478		Wood.	900	158′8″	35′	12′ 4″			1918
22	Goshawk	501	461	Wood.	950	180′	32′ 4″	11′ 6″	5	1	1866
91	Grampian	844	802	Wood.	2200	218′	38′	13′ 2″		1	1894
91	Granada	1729	1643	Wood.	3200	247′	40′	21′ 6″		1	1895
100	Grandee (Can.)	1262		Wood.	1800	197′2″	38′ 5″	23′ 8″			1873
7	Grant, Levi	204	194	Wood.	400	127′	27′	8′			1872
345	Gray, John (Can.) ..	156		Wood.	300	110′	32′	7′ 4″			1881
11	Guido (Can.)	135		Wood.	250	114′	24′	8′			1856
	Steamers										
47	Haddington	1603	1010	Steel.	3000	243′	42′	18′	6	3	1904
47	Hagarty, J. H. G. (Can.)	7462	5704	Steel.	10000	529′	58′	31′	16	6	1914
253	Hall (Can.)	247	138	Comp.	300	102′8″	22′ 5″	7′ 4″			1889

348	Hall, Henry B. (Can.)	1152	962	Wood.	1500	213′	35′	19′	6	1	1881
188	Hall, Stephen C. (Can.)	447	307	Wood.	550	161′2″	30′ 5″	10′ 6″	4	1	1880
47	Hamiltonian (Can.)	2346	1277	Steel.	3000	244′	42′ 6″	26′ 6″	6	3	1912
280	Hanna, H. M., Jr.	6204	4689	Steel.	9000	504′	54′	30′	15	3	1908
145	Hanna, Leonard C.	6356	4922	Steel.	9500	504′	54′	30′	30	3	1905
126	Harlow	575	482	Wood.	1000	194′	35′	10′ 6″	5	1	1891
143	Harriet B.	....	....	Wood.	4000	283′	53′ 6″	17′ 7″	7	3	1895
323	Hart, Frank W.	4307	3374	Steel.	6300	380′	50′	28′	11	4	1902
268	Harvard	5054	4061	Steel.	7500	454′	50′	28′ 6″	14	6	1900
351	Harvester, The	7188	5690	Steel.	10200	525′	58′	31′	32	3	1911
268	Harvey, A. F.	4858	....	Steel.	6800	420′	50′	28′	12	4	1904
328	Harvey, F. E.	355	288	Wood.	Sand	133′	31′	7′ 6″			1899
192	Hausler, M. G.	73	414	Steel.	Sand	144′	35′	10′			1910
162	Hazard, F. R.	5494	....	Steel.	8500	444′	56′	30′	25	3	1910
208	Hazard, W. A.	372	267	Wood.	500	154′	29′	11′ 8″	3		1890
346	Hebard, Chas. S.	6291	4854	Steel.	9500	504′	54′	30′	30	3	1906
328	Heiden, Charles	717	446	Steel.	Sand	160′	35′	14′			1913
35	Helen C.	622	460	Wood.	900	186′	35′	12′ 4″	5	1	1874
267	Hemlock	4796	3501	Steel.	7300	420′	52′	28′	23	4	1907
194	Hennipin	990	639	Wood.	1200	208′8″	35′	12′ 4″			1888
151	Hettler, H. H.	789	536.	Wood.	1200	210′	34′ 7″	13′ 3″	5	1	1890
155	Hickley	131	34	Wood		108′	24′	8′			1901
268	Hill, James J.	6025	4578	Steel.	8300	478′	52′	30′	15	6	1900
145	Hill, Lewis W.	....	....	Steel.	10500	525′	58′	31′	32	3	1917
99	Hilton	166	166	Wood.	250	110′	26′ 6″	7′ 4″			1867
46	Holcomb, Ralph T. (Can.)	375	250	Wood.	450	133′	30′	9′ 6″			1898
323	Hoover & Mason	5841	4578	Steel.	9500	504′	54′	30′	16	3	1905
234	Horn, Chas.	847	....	Wood.	1200	182′	42′ 9″	13′ 3″	5	1	1883
268	Houghton, Douglas	5332	4034	Steel.	7300	456′	50′	28′	14	4	889
109	Houghton, H.	210		Wood.		126′	27′	10′			1889

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

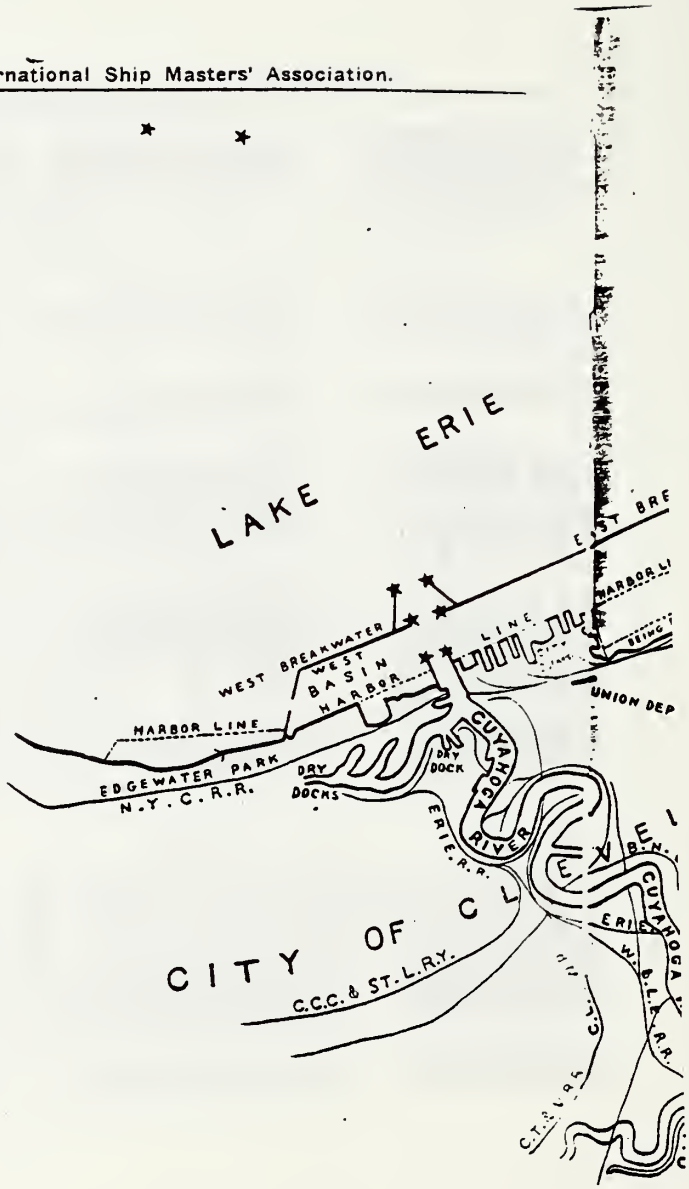
Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel Lgth	Dimensions: Beam	Dimensions: Depth	No. Hitchs	No. Comp.	Year Built
	Steamers										
268	House, Francis E. ..	7769	5943	Steel.	12000	585′	60′	32′	36	4	907
336	Howard W. (Can.) ..	1517	....	Wood.	1800	225′2″	37′ 8″	20′ 3″	6	1	1891
267	Hoyt, James H.	4364	3234	Steel.	6600	404′	50′	27′	23	6	1902
134	Hubbard, Chas.	4846	4287	Steel.	7600	438′	52′	28′	13	3	1907
280	Hubbard, C. Russell.	6839	5389	Steel.	10200	532′	56′	31′	32	3	1906
354	Huron	4810	3051	Steel.	6000	416′	56′	30′	21	3	1914
279	Huron City	368	277	Wood.	500	167′8″	29′	10′ 8″	3	1	1367
330	Hyacinth	738		Steel.		150′	28′	14′			1903
162	Hutchinson, J. T. ..	3734	2780	Steel.	5500	346′	48′	28′	17	3	1901
163	Hydro	1282	872	Steel.		169′	40′	19′			1913
267	Hydrus	4661	....	Steel.	6800	410′	50′	28′	22	4	1899
	Barges										
231	Halstead	496	....	Wood.	900	171′1″	33′ 4″	12′ 6″	4		1873
84	Hamilton (Can.) ...	970	970	Comp.	1900	202′	41′	13′	6	3	1901
224	Hamilton (Can.) ...	970		Comp.	1900	202′	41′	13′	6		1901
103	Harriet D. (Can.) ..	460		Wood.	750	161′6″	32′ 2″	11′	6	1	1885
138	Harrison, Ben	538	511	Wood.	1000	175′	32′ 2″	12′			1889
250	Harsen	531		Wood.	1000	144′	40′	10′ 7″			1916
73	Hartnell, Geo. E. ..	3265	3124	Steel.	5600	352′	42′	27′	11	3	1896
13	Hector (Can.)	539		Wood.	1000	170′3″	35′ 5″	11′ 9″			1882
356	Helvetia	793	753	Wood.	1500	204′6″	35′ 6″	13′ 8″	6		1873
224	Hilda (Can.)	418		Wood.	800	160′	30′	12′ 3″			1898
107	Holland, Grace	629	597	Wood.	1200	189′6″	33′	12′ 8″	5	1	1880
22	Holland, Nelson C. .	564	536	Wood.	1000	187′6″	31′ 8″	11′ 2″	5	1	1881
268	Holley, Alex.	2721	2554	Steel.	6300	361′6″	46′	26′	12	3	1896

	Steamers											
165	Imperial (Oil) (Can.)	636		Steel.		162'4"	25' 5"	7' 4"				1889
165	Imperoyal (Oil) (Can.)	2253	1384	Steel.	Oil	249'6"	43' 1"	19' 8"				1913
165	Impoco (Oil) (Can.)	1683		Steel.		242'	40' 1"	20'				1910
224	India (Can.)	976	573	Wood.	1700	215'9"	36' 4"	15'				1899
267	Indus	3871	2997	Steel.	5600	356'	50'	28'		10	3	1901
165	Iocallte (Can.)	....	....	Steel.		250'	43'	18'				1916
165	locoma (Can.)	1669		Steel.	Oil	248'2"	42' 6"	15' 6"				1912
47	lonic (Can.)	1708	1030	Iron..	2000	231'	35' 6"	24' 6"		6	4	1872
182	Ireland, Robert L. ..	6387	4889	Steel.	9500	504'	54'	30'		30	4	1914
47	Iroquois (Can.)	2359	1452	Steel.	3500	247'	43'	25' 6"		6	2	1902
142	Iselin, Adrian	2072		Steel.	3000	244'	43'	26'		4		1915
72	Ishpeming	6924	5476	Steel.	10000	530'	56'	31'		31	3	1906
	Barges											
54	Imperial (Can.)	413				120'	38'	7' 5"				1902
144	Interlaken	567	538	Wood.	1100	170'	34' 2"	11'		5	1	1893
213	Inverneill (Can.) ...	1340		Steel.	3000	238'	36'	21' 7"			2	1895
213	Inversnaid (Can.) ..	1318		Steel.	3000	238'	36' 2"	21' 7"				1892
13	Ireland (Can.)	339		Wood.	700	147'	28'	9' 6"				1863
272	Iron Cliff	1116	1077	Wood.	2000	212'4"	35'	18'		6	1	1881
253	Iona (Can.)	158		Wood.		111'8"	22' 9"	7' 7"				1890
	Steamers											
143	Jacob, C. W.	2062	1714	Wood.	3000	298'	41'	21'		9	2	1891
171	Jenkins, Chas. O. ...	6285	4287	Steel.	9500	504'	54'	30'		30	3	1907
304	Jex, H. N. (Can.) ...	420	479	Wood.	650	169'4"	26' 5"	10' 3"				1868
19	Jones, B. F.	6939	5492	Steel.	10000	530'	56'	31'		32	3	1906
267	Jones, H. R.	5315	....	Steel.	7700	448'	52'	28'		25	6	1903
224	Joyland (Can.)	1845		Wood.		240'	39'	25'				[illegible]

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel Length	Dimensions: Beam	Dimensions: Depth	No. Hatchs	No. Comp.	Year Built
	Steamers										
47	Juno (Can.)	288	196	Wood.	350	139'7"	26' 8"	8' 8"	4		1895
267	Jupiter	3719	2769	Steel.	5600	346'	48'	28'	10	3	1901
	Barges										
345	Jackson (Can.)	157		Wood.	300	110'7"	21' 3"	7' 8"			1881
262	Jackson, G. K.(Can.)	400	....	Wood.	700	163'6"	31'	9' 1"	4	1	1882
23	Jennette (Can.)	329		Wood.	700	141'	28'	11'			1881
268	Jenny, W. Le Baron	3422	3280	Steel.	6000	378'	45'	26'	11	3	1897
121	Jessie	201		Wood.		112'	24'	9'			1900
69	Jones, Chester B. ...	493	470	Wood.	900	167'	30' 3"	12'	5	1	1873
116	Joses	120	114	Wood	225	99'9"	24'	7' 1"			1866
172	Judd, E. T.	389	369	Wood	800	149'6"	29' 6"	11' 4"			1872
253	Jumbo (Can.)	159		Wood.	300	106'	22' 6"	7' 2"			1883
	Steamers										
232	Kalkaska	679	555	Wood.	900	178'	33' 9"	15' 6"	4	1	1884
45	Kearsarge	3092	2721	Steel.		328'	44'	27'			1894
179	Kelly Island	881	414	Steel.	Sand	175'	38'	10' 6"			1914
142	Kendall, Harvey J. .	398	264	Wood.	500	141'7"	31'	9' 4"	5	1	1892
222	Kennedy, Hugh	7064	5500	Steel.	10200	532'	56'	32'	32	3	1907
268	Kerr, D. G.	7556	....	Steel.	12000	580'	60'	32'	35	3	1916
141	Ketchum, J. B., 2d (Can.)	1109	763	Steel.	1500	193'	40' 6"	13'	4	1	1892

180	Keybelle (Can.)	1730	1254	Steel.	3000	244′	42′ 6″	20′	6	3	1912
180	Key Port (Can.) ...	1721	1297	Steel.	3000	250′	42′ 5″	20′	6	3	1909
180	Keynor (Can.)	1760	1090	Steel.	3100	250′	42′ 5″	20′	6	3	1914
180	Keyvive (Can.)	1768	1045	Steel.	3100	250′	42′ 5″	20′	6	3	1913
180	Key West (Can.) ..	1725	1297	Steel.	3000	250′	42′ 5″	20′	6	3	1909
339	King, Geo.	532	380	Wood.	750	176′5″	30′ 8″	13′ 5″	4	1	1874
19	King, Willis L.	7568	5712	Steel.	11500	580′	58′	32′	36	3	1910
182	Kinney, A. T.	6328	....	Steel.	9500	504′	54′	30′	9	3	1908
24	Kopp, Jacob T.	6035	4530	Steel.	8700	480′	54′	30′	14	3	1907
	Barges										
96	Katahdin (Can.) ...	381		Wood.	800	150′	30′ 9″	10′ 9″			1888
141	Katie (Can.)	370		Wood.	800	150′	30′	10′			1904
221	Keith, Ida	489	465	Wood.	900	163′3″	30′ 6″	13′ 4″		1	1873
179	Kelley, Norman	513	497	Steel.	1500	179′	35′	15′			1905
106	Kennedy, W. L.	1014	....	Wood.	2100	251′5″	36′	14′ 5″	7	1	1882
289	Kewaunee	206	172	Wood.	400	123′8″	27′ 4″	8′ 3″			1866
13	Kildonan (Can.)	499		Wood	900	174′	33′	11′			1888
181	King, A. B.	594		Wood.	1200	177′	32′	12′ 6″			1881
13	Kingston (Can.)	578		Wood.		181′	35′	12′			1898
186	Knapp, F. M.	384	365	Wood.	800	155′	29′ 6″	11′ 6″	8	1	1867
268	Krupp, Alfred	3259	3124	Steel.	5800	352′	44′	26′	11	3	1896
	Steamers										
145	La Belle	6407	4876	Steel.	9500	504′	54′	30′	30	4	1909
12	La Salle	1921	1596	Steel.	2700	266′	38′	24′	8	3	1890
267	Lagonda	3647	3017	Steel.	5200	375′	46′	28′	10	3	1896
327	Lakeland	2425	1813	Steel.		280′	39′	24′			1887
266	Lakeport	1829	1669	W.& I.		263′	36′ 4″	27′			1880
214	Laketon (Can.)	4716	....	Steel.	6800	416′	50′	28′	12	4	1903
276	Lake Michigan(Can.)	588		Wood.	450	136′	23′ 9″	11′ 5″			1872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HARBOR LINE
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DRY DOCK
CUYAHOGA RIVER
ERIE R.R.
CITY OF C L E V E L
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UNION DEP
CUYAHOGA
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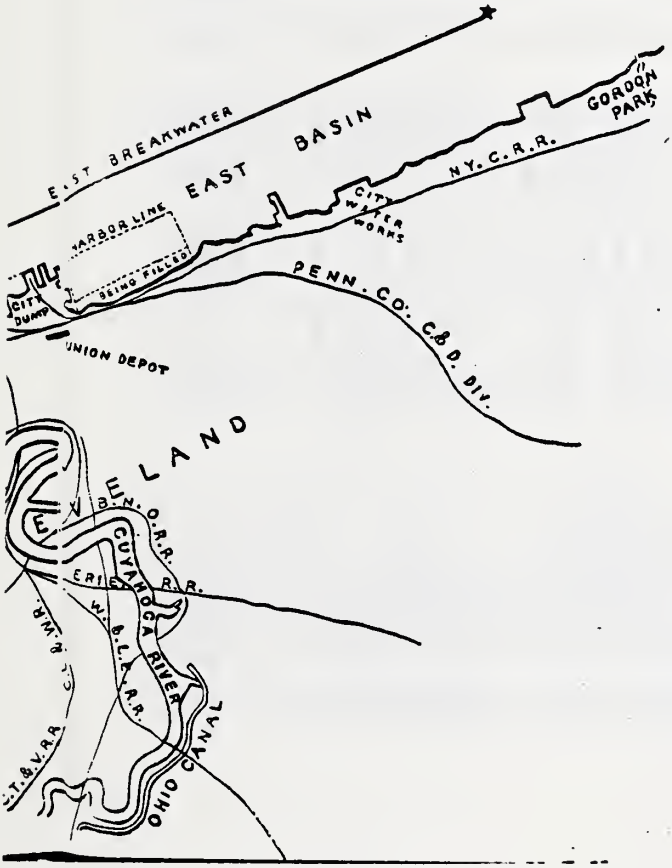
W. & L.E. R.R.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PENN. CO. C.&D. DIV.
LAND
B.N.O.R.R.
CUYAHOGA RIVER
ERIE R.R.
W.B.L.E.R.R.
OHIO CANAL
C.T.&V.R.R.

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
135	Lakewood	1917	1677	W.& I.		266′	38′	26′			1884
135	Landbo (Can.)	2292	....	Wood.	3200	280′	41′ 5″	20′	8	3	1890
220	Langell, Simon	845	677	Wood.	1200	195′4″	34′ 6″	13′ 7″		1	1886
19	Laughlin, James	6939	5492	Steel.	10000	530′	56′	31′	32	3	1906
141	Lehigh (Can.)			Iron	1800	238′	36′	15′ 4″	6		1880
134	Leonard, Geo. B.	4037	2844	Steel.	6300	380′	50′	28′	11	4	1903
162	Leopold, N. F.	6929	5245	Steel.	10200	532′	56′	31′	32	3	1908
76	Lewiston	1808	1342	Comp.	3000	272′	38′	21′	8	3	1886
142	Liberty	1294		Wood.	2200	240′	39′ 6″	18′			1894
252	Linden	894	708	Wood.	1500	206′	35′	12′ 8″	5	1	1895
268	Linn, Wm. R.	4328	3196	Steel.	5800	400′	48′	28′	12	4	1898
328	Little, C. H.	324	241	Wood.	Sand	144′	28′	8′			1903
86	Livingstone	2134	1622	Comp.	3300	281′	41′	22′	7	1	1889
280	Livingstone, Wm.	6634	4927	Steel.	10200	532′	58′	31′	30	3	1908
267	Lupus	3871	2997	Steel.	5600	356′	50′	28′	10	3	1901
73	Luzon	3582	2778	Steel.	5400	346′	48′	28′	10	4	1902
268	Lynch, Thomas X	7240	5450	Steel.	11500	580′	58′	32′	36	3	1907
	Barges										
13	Lapwing (Can.)	516		Wood.	1000	175′7″	31′ 2″	12′			1892
232	Liberty	673		Comp.	1800	234′	36′	13′			1878
40	Lozen, J. B.	565	538	Wood.	1100	178′	32′ 6″	12′ 4″	6	1	1890
95	Lyon, Mary (Can.)	334	310	Wood.	600	138′	26′ 2″	12′			1874

	Steamers										
267	McCullough, Jr., C. H.	5750	....	Steel.	10200	532′	56′	31′	32	3	1907
268	McDougall, Alex	3686	2662	Steel.	6800	413′	50′	27′	13	4	1898
268	McGonagle, W. A.	7811	....	Steel.	12000	580′	60′	32′	35	3	1916
271	McGregor, Mary A.	711	581	Wood.	1000	179′	33′	13′	4	1	1889
346	McIntosh, H. P.	6765	5371	Steel.	9600	520′	54′	31′	16	4	1907
47	McKee, J. A. (Can.)	2158		Steel.	3300	248′	43′	26′	7	3	1908
328	McKerchey, John M.	732	443	Steel.	Sand	161′	37′ 1″	11′			1906
162	McKinney, Price	5250	3927	Steel.	7600	432′	54′	28′	12	4	1908
268	McLean, J. H.	4657	....	Steel.	6800	414′	50′	28′	12	4	1902
208	McLouth, Pierce	474		Wood.	800	176′62	31′ 7″	12′			1880
340	McVay, H. J.	533		Wood.	1006	172′	32′ 4″	12′ 1″			1889
224	McVitty, A. (Can.)	1458		Wood.	2500	249′2″	42′	6′			1880
	Barges										
3	McWilliams, Ed.	743	706	Wood.	1500	200′	35′	13′ 6″	6	1	1893
54	McLachlan, Mary E. (Can.)	1849		Wood.	2900	251′	41′	16′ 2″			1893
	Steamers										
73	MacTier, A. D.	1706		Steel.	3000	244′	43′	21′	6	2	1913
73	Maher, T. K.	3452		Steel.	5300	371′	45′	27′	11	4	1895
268	Malietoa	5229	3921	Steel.	7500	454′	50′	28′ 6″	14	3	1899
214	Malton (Can.)	1644	974	Comp.	2600	253′	40′	19′	6	1	1888
317	Manchester	2132	1611	Comp.	3100	281′	41′	23′	7	3	1889
18	Maple Grove (Can.)	1057		Wood.	1400	208′7″	35′ 9″	14′	5		1889
47	Maple Hill (Can.)			Wood.	1150	191′	34′	13′ 7″	4		1883
47	Mapleton (Can.)	1781		Steel.	3000	250′	42′ 6″	18′ 6″			1909
330	Marigold	454		Iron		150′	27′	12′			1890

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
159	Mary H.	159		Wood.	Sand	116′	29′ 5″	7′ 2″			1886
268	Mataafa	268		Steel.	7300	430′	50′	28′ 6″			1899
277	Manlstique	474	382	Wood.	500	157′	31′	12′ 6″			1882
224	Manola			Steel.	3300	282′	40′	24′ 6″	9	3	1890
268	Maricopa	4223	3669	Steel.	5800	406′	48′	28′	12	4	1896
227	Marion	930	....	Wood.		202′	35′	15′			1889
268	Mariposa	2831	2306	Steel.	4100	330′	45′	24′ 6″	9	3	1892
268	Marltana	2957	2429	Steel.	4100	320′	45′	24′ 6″	9	3	1892
41	Markham, Geo. C. ..	309	250	Wood.	450	141′	28′	10′ 8″	3	1	1883
72	Marquette	4956	....	Steel.	7200	420′	52′	28′	12	3	1906
267	Mars	4377	....	Steel.	6800	416′	50′	28′	22	4	1899
103½	Marshall, Maggie ...	365	279	Wood.	400	150′	30′	11′ 4″	3	1	1873
217	Marshall, Samuel (Can.)	755	540	Wood.	1100	198′	34′	16′ 6″	5	1	1888
47	Martian (Can.)	3396	2010	Steel.	5600	346′	48′	28′	10	3	1901
268	Mather, Samuel	1713	1318	Steel.	3500	308′	38′	24′	12	1	1892
267	Mather, Samuel	6751	5408	Steel.	10500	530′	60′	31′	32	3	1906
72	Mather, Wm. G.	6838	5183	Steel.	10000	513′	60′	31′	30	3	1905
47	Matthews, W. D. (Can.)	3965	2450	Steel.	5600	358′	48′	28′	10	4	1903
197	Mauch Chunk	4449	3609	Steel.		381′7″	50″ 5″	28′			1901
268	Maunaloa	4951	4004	Steel.	7000	430′	50′	28′ 6″	13	6	1899
122	Maytham, Thomas ..	2329	1972	Steel.	3600	286′	41′	24′	8	1	1892
122	Mecosta	1776	1418	Wood.	3000	281′	40′	20′	7	1	1888

	Steamers										
141	Mercur, Fred	1224	966	Wood.	1500	232′	35′ 6″	20′	6	1	1882
306	Miami	228	191	Wood.	400	131′	28′	10′	3	1	1888
72	Michigan	6924	5476	Steel.	10000	530′	56′	31′	31	3	1906
47	Midland King (Can.)	3959	2450	Steel.	5500	358′	48′	28′	10	4	1903
47	Midland Prince (Can.)	6636	5141	Steel.	8700	466′	55′	31′	14	4	1907
145	Midvale	....	....	Steel.	12000	580′	60′	32′	18	4	1917
280	Miller, Leonard B. ..	6291	4921	Steel.	9500	504′	54′	30′	15	3	1910
19	Miller, P. P.	3845	2858	Steel.	5700	354′	48′	28′	10	4	1903
267	Mills, D. O.	6598	4850	Steel.	10300	532′	58′	31′	33	3	1907
322	Mills, J. E. (Can.) ..	129	64	Wood.		108′	23′ 5″	7′ 8″			1883
136	Milwaukee	3327	2424	Steel.		325′	44′	28′			1902
314	Minch, Anna C.	4285	3229	Steel.	6300	380′	50′	28′	20	4	1903
314	Minch, Philip	5865	4471	Steel.	8700	480′	52′	30′	28	3	1905
268	Mitchell, Pentecost .	4655	....	Steel.	6800	416′	50′	28′	12	4	1903
208	Mitchell, Samuel ...	2277	1870	Steel.	3200	293′	40′ 6″	24′ 6″	8	3	1892
340	Mitchell, G. A.	700		Wood.	1000	194′	33′	16′ 6″			1883
24	Moll, Clifford F. ...	5141	3894	Steel.	8300	444′	56′	28′	13	3	1909
47	Morden, W. Grant (Can.)	8973	6595	Steel.	12500	604′	59′	32′	38		1914
268	Morgan, J. P.	7161	5530	Steel.	11500	580′	58′	32′	35	3	1906
268	Morgan, J. P., Jr. ..	7521	5824	Steel.	11500	580′	58′	32′	36	3	1910
283	Morley, Wm. B. (Can.)	1911	....	Wood.	2500	240′	42′ 8″	24′ 8″			1892
145	Morrell, Daniel J. ..	7239	....	Steel.	11500	580′	58′	32′	18	3	1906
145	Morris, E. B.	6971	....	Steel.	10200	530′	56′	31′	31	3	1907
295	Morrow, Joe S.	4895	3606	Steel.	7300	420′	52′	28′	23	4	1907
73	Morrow, John F.	1961		Steel.	3206	246′	41′	26′ 6″			1890
267	Morse, Jay C.	6649	5087	Steel.	10300	532′	58′	31′	32	3	1907
268	Morse, Samuel F. B.	4936	4301	Steel.	7500	456′	50′	29′	15	4	1898
158	Mueller	567	....	Wood.	850	172′	30′	12′ 6″	4	1	1887

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel Length	Dimensions: Beam	Dimensions: Depth	No. Hatchs	No. Comp.	Year Built
	Steamers										
162	Mullen, Martin	4635	3471	Steel.	7000	416′	50′	28′	23	4	1904
136	Muncy	3863	2946	Steel.		350′	46′	30′			1902
72	Munising	4309	....	Steel.	6300	380′	50′	28′	11	4	1902
268	Murphy, Simon J. ..	4869	3770	Steel.	7400	428′	51′ 6″	28′	13	4	1900
	M. & M. C. No. 2 ...	405	538	Wood.	500	149′6″	30′	10′ 6″	3		1890
	Barges										
100	Mable (Can.)	247		Wood	500	127′7″	25′ 8″	12′ 9″			1892
176	Magill, C. J. (Can.)..	334		Wood.	600	141′	30′ 5″	11′ 8″			1863
268	Magna	3259	3124	Steel.	5800	352′	44′	26′	11	3	1896
268	Maia	3804	3442	Steel.	6300	376′	48′	26′	12	3	1898
268	Maida	3474	3210	Steel.	6300	376′	46′	26′	12	3	1898
145	Maitland, Alex.	3351		Steel.	5700	366′	44′	26′			1902
224	Mamie (Can.)	370		Wood.	700	129′4″	28′	11′ 2″			1897
268	Manda	3256	3121	Steel.	5500	352′	44′	26′	11	3	1896
268	Manila	5039	4667	Steel.	7900	436′	50′	28′ 6″	14	6	1899
268	Marcia	2237	2132	Steel.	4000	302′	40′	25′	9	3	1895
268	Marsala	5039	4667	Steel.	7900	436′	50′	28′ 6″	14	6	1900
91	Matanzas	2600	2525	Wood	4500	324′	45′ 6″	21′ 6″	11	1	1899
268	Martha	3256	3121	Steel.	5500	352′	44′	26′	11	3	1896
142	Mathews, Jennie ...	332	316	Wood	500	138′	26′	12′			1874
13	Melrose (Can.)	740	740	Wood	1300	183′6″	35′ 8″	14′			1895
13	Menominee	456	433	Wood	900	166′2″	33′ 1″	10′ 9″			1883
305	Merrill, Julia B. (Can.)	200	190	Wood.	500	152′	27′	8′ 5″	4	1	1872

270	Minch, Sophia (Can.)	538		Wood.	1100	184′	33′	13′ 8″	5	1	1873
272	Mingoe	712	681	Wood.	1300	198′6″	36′	12′	6	1	1893
22	Miztec	777	738	Wood.	1350	194′	34′ 6″	14′	5		1890
91	Montezuma	2722	2710	Wood.	4900	342′	46′	21′ 6″	11	1	1903
270	Moran, David	372		Wood.	750	162′	36′	9′			1901
208	Mowatt, James	523	497	Wood.	950	166′4″	33′ 1″	13′	5	1	1884
332	Mowatt, Oliver (Can.)	244		Wood.	500	131′2″	25′ 9″	10′ 6″			1873
306	Mueller, Minnie	199	189	Wood.	400	120′	26′ 4″	9′ 7″			1867
270	Muir, A. (Can.)	330		Wood.	500	138′	23′ 9″	11′ 4″			1874
253	Muriel (Can.)	192		Wood.	350	121′9″	24′ 6″	7′ 5″			1886
13	Muskoka (Can.)	482		Wood.	900	149′	26′	11′ 6″			1872
	Steamers										
72	Negaunee	4305	....	Steel.	6300	380′	50′	28′	11	4	1902
268	Neilson, James B.	2234	1571	Steel.	3500	308′	42′	25′	8	1	1892
267	Neptune	3717	2773	Steel.	5600	346′	48′	28′	10	3	1900
234	Nessen, N. J.	440	319	Wood	500	149′	37′	11′ 5″	3	1	1880
134	Nettleton, A. E.	6286	5006	Steel.	9800	525′	55′	31′	31	3	1908
101	Nevada (Can.)	1257	775	Steel.	2000	230′	34′ 1″	21′ 1″		4	1890
145	Newbald, A. E.	6971	....	Steel.	10200	530′	56′	31′	32	3	1908
119	Newona (Can.)		2179	Steel.		250′	43′ 5″	25′			1909
24	Niagara		1951	Steel.	3000	266′	42′	20′			1897
224	Nicaragua	1201	911	Wood.	2400	241′	37′	22′ 8″			1894
144	Niko	814	658	Wood	1150	189′	35′	13′	4	1	1889
344	Normandie	3861	2941	Steel.	5000	350′	46′	30′			1909
136	North Lake	3921	3045	Steel.	5000	350′	46′	30′			1909
136	North Sea	3849	2928	Steel.	5000	350′	46′	30′			1909
136	North Star	5667	....	Steel.	8500	480′	52′	30′	14	3	1906
280	Norton, David Z.	5667		Steel.	8500	480′	52′	30′			1906
134	Norway	6673	5314	Steel.	9700	504′	58′	30′	29	3	1910

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
134	Nottingham, Wm. ..	4234	3070	Steel.	6300	380′	50′	28′	11	4	1902
162	Nye, Harold B.	4256	....	Steel.	6300	380′	50′	28′	20	4	1902
	Noton, D. Z.	5667	4250	Steel.	8500	480′	52′	30′	12	3	1906
	Barges										
224	Nadine (Can.)	484		Wood.	900	166′	29′ 8″	12′ 6″			1899
268	Nasymith, James ...	3422	3162	Steel.	5700	366′	44′	26′	11	3	1896
176	Nau, Libbie	236	198	Wood.	450	129′	26′ 6″	10′			1867
205	New Dominion (Can.)	196		Wood.		117′6″	25′ 3″	9′ 2″			1868
175	Newland, J. B.(Can.)	145		Wood.	300	111′4″	26′ 2″	7′ 7″			1870
144	Norris, Alice B.	692	589	Wood.	1300	194′	32′ 4″	13′ 2″	6		1872
174	Norway (Can.)	332		Wood.	600	135′5″	26′	11′ 9″			1873
268	No. 137	2480	2367	Steel.	5500	352′	45′	26′	12	3	1896
	Steamers										
227	Oades, John	1454	1225	Wood.	1900	212′	36′	24′			1890
246	Oakes, H. K.	6215	....	Steel.	9200	504′	52′	30′	29	3	1907
224	Oatland (Can.)	1854		Wood.		241′7″	36′ 7″	24′			1884
338	Oceanica	1490	....	Wood.	2500	263′	37′ 3″	21′	6	1	1881
267	Odanah	4907	3588	Steel.	7300	420′	52′	28′	23	4	1907
120	Ogemaw	594	325	Wood	650	162′6″	30′	11′ 4″	3	1	1861
122	Oglebay, E. W.	3666	3019	Steel.	5200	375′	45′	26′	10	3	1896

19	Ohl, Edwin N.	5141	3818	Steel.	7600	420′	54′	28′	23	4	1907
268	Olcott, Wm. J.	7568	5712	Steel.	11500	580′	58′	32′	36	3	1910
47	Omaha (Can.)	1251	800	Wood.	1800	215′	34′	19′	6	1	1887
91	Orinoco	2226	1928	Wood.	3400	295′	44′	23′	8	1	1898
45	Orr, Arthur	2745	2117	Steel.	4500	335′	41′	24′ 7″			1893
346	Osborne, A. W.	3826	3067	Steel.	6400	400′	48′	28′	21	4	1896
318	Osborne, Frank C.	681	345	Steel.		155′	37′	10′			1912
47	Osler, E. B. (Can.)	6786	4361	Steel.	9000	491′	56′	31′	14	5	1907
228	Otis, John	301	254	Wood	450	148′7″	27′ 4″	10′ 6″			1864
220	Overland (Can.)	758	....	Wood.	950	215′	31′	10′ 6″	4		1881
	Barges										
316	Oak Leaf	395	375	Wood.	750	160′	31′ 2″	10′ 7″			1866
277	Orton, Minnie E.	431	410	Wood.	800	172′	31′	11′ 6″	5	1	1884
106	Our Son	720	684	Wood.	1300	182′1″	35′ 1″	13′	5	1	1875
243	Owen, Geo. B.	744	706	Wood	1500	196′	34′	13′ 2″	6	1	1893
	Steamers										
144	Pahlow, Lewis	366	290	Wood.	500	155′	30′	11′	3		1882
73	Paisley, R. R.	3762	....	Steel.	5800	360′	50′	28′	10	4	1903
162	Paine, Wm. A.	5798	4435	Steel.	8500	480′	52′	30′	28	3	1905
268	Palmer, Wm. P.	7602	5746	Steel.	11500	580′	58′	32′	34	3	1910
73	Panay	3811	2778	Steel.	5600	356′	50′	28′	10	3	1902
268	Pargny, E. W.	....	....	Steel.	12000	580′	60′	32′	35	3	1916
186	Parks, O. E.	392	289	Wood.	475	134′5″	28′	11′	3	1	1891
267	Pathfinder	2424	1761	Steel.	4100	320′	42′	25′	9	1	1892
277	Pawnee	639	475	Wood.	900	174′	32′ 6″	13′ 2″	4	1	1889
267	Pegasus	4776	....	Steel.	6800	416′	50′	28′	12	4	1902
297	Penobscot	4077	3530	Steel.	6700	454′	44′ 6″	26′ 7″	14	4	1895
179	Penobscot	272	....	Wood.	....	129′	27′ 4″	9′ 3″			1880
251	Pentland	827	....	Wood.	1150	192′8″	35′ 6″	12′ 3″	5	1	1894
268	Perkins, Geo. W.	6406	4922	Steel.	10500	549′	56′	31′	34	2	1905
267	Perseus	4978	3770	Steel.	8200	464′	50′	28′	14	4	1905
47	Phelan, T. P. (Can.)	1320		Steel.	2300	241′	41′	14′ 4″			1918

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. Hatchs	No. Comb.	Year Built
	Steamers										
323	Philbin, D. M.	6272	4826	Steel.	9500	504′	54′	30′	30	3	1905
268	Phipps, Henry	7240	5450	Steel.	11500	580′	58′	32′	36	3	1907
162	Pierce, E. L.	5494	....	Steel.	8500	444′	56′	30′	25	3	1910
72	Pioneer	6316	....	Steel.	9500	504′	54′	30′	30	3	1906
268	Poe, Gen. Orlander M.	5619	4144	Steel.	7800	470′	50′	29′	15	4	1900
19	Pollock, W. G.	4872	3585	Steel.	7300	420′	52′	28′	23	4	1906
162	Polynesia	3640	2596	Steel.	5700	376′	46′	26′	11	3	1897
72	Pontiac	2298	1788	Steel.	3500	300′	40′	24′	8	3	1889
282½	Powell, L. G.	143	....	Wood.		105′	27′ 5″	6′			1903
208	Prentice, J. H.	535	398	Wood.	850	167′6″	32′	12′ 2″	4	1	1885
72	Presque Isle	4578	3570	Steel.	6600	406′	50′	28′	12	4	1898
268	Princeton	5125	3820	Steel.	7500	454′	50′	28′ 6″	14	6	1900
	Barges										
22	Page, Marion W. ...	762	712	Wood.	1200	193′	34′	13′ 8″	6	1	1876
85	Pease, E. S. (Can.) .	338		Wood.	600	160′	25′ 6″	11′			
179	Pellatt, J. H.	346	296	Steel.	1500	179′	35′	15′			1905
47	Pennington, B. L. ..	1142	1085	Wood.	2200	239′	38′ 2″	14′ 6″			1889
22	Peshtigo	633	601	Wood.	1000	201′	34′ 4″	12′	6	1	1889
	Power, Wm. (Can.) .	168		Wood.	320	112′8″	22′	8′ 2″			1904
123	Progress	828	844	Wood.	1800	255′	37′	21′			1880
	Steamers										
268	Queen City	3979	3198	Steel.	5800	400′	48′	28′	12	1	1896

	Barges										
224	Quebec (Can.)	1016	989	Steel.	1900	206'2"	40'	14' 6"	6		1901
339	Quale, Thos.		610	Wood.	1200	180'5"	30'	32' 5"			1872
	Steamers										
22	Ralph, P. J.	964	658	Wood.	1200	211'5"	37'	14'	5	1	1889
323	Ranney, Rufus P. ..	4797	3505	Steel.	7300	420'	52'	28'	12	4	1908
268	Ream, Norman B. ..	7053	5444	Steel.	11500	580'	58'	32'	36	3	1906
179	Recor, E. P.	368	232	Wood	600	123'	30'	9' 9"			1902
24	Reeb, M. A.	3762	....	Steel.	5800	360'	50'	28'	10	4	1903
267	Reed, James H.	5598	4125	Steel.	7700	448'	52'	28'	25	6	1903
346	Rees, W. D.	3760	2992	Steel.	5800	396'	45'	28'	12	4	1896
165	Regmolite (Can.) ...	2631		Steel.		250'	43' 8"	23' 5"			1917
268	Regulus	4805	....	Steel.	6800	416'	50'	28'	12	4	1900
278	Reiss, Clemens A. ..	4897	....	Steel.	7000	430'	50'	28' 6"	13	6	1901
278	Reiss, John P.	6432	4963	Steel.	9500	504'	54'	30'	30	4	1910
278	Reiss, Wm. A.	5002	....	Steel.	7000	430'	50'	28' 6"	13	3	1901
278	Reiss, Richard J. ...	4997	....	Steel.	7000	430'	50'	28' 6"	13	3	1901
278	Reiss, Otto M.	4897	....	Steel.	7000	430'	50'	28' 6"	13	6	1901
278	Reiss, Peter	5923	4217	Steel.	9500	504'	54'	30'	30	4	1910
309	Renown	4154	2098	Steel.	Oil	373'	52'	25'			1912
268	Rensselaer	5124	3827	Steel.	7800	454'	50'	28' 6"	14	2	1900
145	Replogle, J. L.	6996	....	Steel.	10500	549'	56'	31'	34	3	1906
19	Rhodes, Joshua W. .	4872	3586	Steel.	7300	420'	52'	28'	23	4	1906
141	Rhodes, R. R. (Can.)	1598	957	Wood.	2400	246'	40'	21'	6	1	1887
336	Richard, W. (Can.)	....	....	Wood.	2000	228'	36' 3"	19'	6	1	1891
268	Richardson, R. R. ...	4644	....	Steel.	6800	416'	50'	28'	12	4	1902
286	Richardson, W. C. ..	4937	....	Steel.	7200	420'	52'	29'	12	4	1908
281	Richland Queen	2228	....	Wood.	3300	295'	44'	21'	8	1	1898
281	Richland Star	2051	....	Wood.	3200	298'	41'	21'	16	2	1891

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
214	Riverton (Can.)	4466	....	Steel.	7000	452′	48′	28′	14	4	1896
19	Robbins, Francis L..	4222	3036	Steel.	6200	380′	50′	28′	20	3	1905
346	Robbins, S. H.	4909	3617	Steel.	7300	444′	50′	28′ 6″	13	4	1899
268	Roberts, P., Jr.	7593	....	Steel.	11700	580′	58′	32′	35	3	1913
24	Roberts, W. T.	5359	....	Steel.	9500	504′	54′	30′	30	3	1906
267	Robinson, C. S.	6829	....	Steel.	10000	525′	55′	31′	31	3	1906
142	Robinson, S. W.	1655		Steel.	3000	244′	43′	21′			1912
141	Rock Ferry (Can.) .	1398	738	Wood.	2000	235′3″	37′ 2″	18′ 7″	6	1	1882
136	Rochester	4571	3855	Steel.		382′6″	50′	30′			1907
268	Rockefeller, Frank .	2759	2013	Steel.	5200	366′	45′	26′	10	3	1896
268	Rogers, Henry H. ..	7053	5444	Steel.	11500	580′	58′	32′	36	3	1906
145	Rogers, Wm. A.	6534	5101	Steel.	10000	525′	55′	31′	32	3	1905
270	Rolph, John (Can.).	211	212	Wood	500	136′6″	37′ 8″	10′ 3″			1883
238	Roumania	1837	1441	Wood.	2600	273′	39′ 5″	22′ 6″	7	1	1887
165	Royalite (Can.)	....	....	Steel.		250′	43′	18′			1915
123	Rudolph, Wm.	267	209	Wood.	500	145′	23′ 6″	9′ 3″			1880
142	Rugee, John	1216	950	Wood.	1700	216′	35′	20′	5	1	1888
	Barges										
13	Redington, Nellie ..	816	775	Wood.	1400	205′9″	33′ 8″	13′ 9″			1872
144	Redfern, C. E.	680	646	Wood.	1300	181′	35′	13′ 1″	6	1	1890
253	Redfern, J. H. (Can.)	208		Wood.	400	122′1″	24′ 1″	8′ 6″			1907
47	Reed, Isabella (Can.)	480		Wood.	1000	186′	31′ 5″	11′			1881

13	Rene, J. G. (Can.) ..	870		Wood.	1700	197'5"	36' 7"	15' 2"			1891
266	Richland Daisy	1046	....	Wood.	2100	211'	35'	16' 6"	6	1	1893
47	Rickarton (Can.) ...			Wood.	2200	220'	36' 2"	22'	7	1	1890
253	Robertson, J. (Can.)	152		Wood.	300	108'	23'	7' 2"			1898
268	Roebling, John A. ..	4693	4447	Steel	7900	436'	50'	28' 6"	15	4	1898
	Steamers										
207	St. Louis	985	795	Wood.	1200	193'	31' 9"	11' 7"			1864
328	Sachem	739	542	Wood.	Sand	187'	34'	14' 8"	4	1	1889
91	Sacramento	2380	1903	Wood.	3500	308'	43'	22' 6"	8	1	1895
26	Saginaw (Can.)	357		Wood.	500	142'	25' 5"	10'			1873
47	Sarnian (Can.)	2656	1710	Steel.	4700	324'	42'	26' 6"	9	3	1895
165	Sarnalite (Can.) ...	....	....	Steel.		250'	43'	18'			1916
173	Sarnor (Can.)	1319	1152	Wood.	1900	219'	36'	17'	5	1	1888
267	Saturn	4426	....	Steel.	6800	416'	50'	28'	22	4	1900
145	Saunders, E. N., Jr..	6657	5140	Steel.	9700	525'	55'	31'	32	3	1906
69	Sawyer, Philetus ...	449	308	Wood.	650	152'	31' 6"	9' 6"	3	1	1884
144	Sawyer, Wm. H. ...	746	581	Wood.	1100	201'	37'	13'	4	1	1890
268	Schiller, Wm. B. ...	7521	5819	Steel.	11500	580'	58'	32'	36	3	1910
73	Schneider, A. E. R...			Steel	9000	540'	59'	33' 6"			1900
73	Schneider, Cletus ..	3784	....	Steel.	5800	360'	50'	28'	10	4	1892
65	Schoolcraft (Can.) ..	745	595	Wood.	1000	180'	34'	15'	4	1	1884
298	Schoonmaker, Col. J. M.	8603	6650	Steel.	12200	590'	64'	33'	35	3	1912
253	Scotsman (Can.) ...	265	114	Wood.	300	108'	23' 6"	7'			1903
208	Scranton	2015	1595	Steel.	3000	260'	39'	24' 6"			1888
47	Seguin (Can.)	1141	771	Steel.	1200	207'	34' 2"	13'	5	2	1890
19	Seither, Frank	3887		Steel.	5700	356'	50'	28'			1904
267	Sellwood, Joseph ...	6741	5269	Steel.	10000	525'	55'	31'	31	3	1906
280	Senator	4048	3178	Steel.	6000	410'	45' 6"	28'	13	4	1896
141	Senator Derbyshire (Can.)	1246	987	Wood.	2200	220'	40'	18'	6		1897

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
171	Shaughnessy, Sir Thomas	6276	4665	Steel.	8500	480′	52′	30′	28	3	1906
268	Shaw, Howard L.	4901	3802	Steel.	7400	428′	51′ 6″	28′	13	4	1900
145	Shaw, Quincy A.	6336	5013	Steel.	9500	504′	54′	30′	30	4	1911
275	Shaw, Charles H. (Can.)	1489		Wood.		240′	42′	14′ 9″			1889
72	Sheadle, J. H.	6924	5476	Steel.	10200	530′	56′	31′	31	3	1906
91	Shenandoah	2251	1880	Wood.	3500	308′	43′	22′ 6″	8	1	1894
298	Shenango	8047	6498	Steel.	11500	585′	58′	32′	35	3	1909
267	Sherwin, John	6979	....	Steel.	9600	514′	54′	31′	16	4	1906
268	Sheras, McGillivary.	4803	....	Steel.	6800	420′	50′	23′	12	4	1904
208	Shores, E. A., Jr.	520	396	Wood	750	176′	35′	11′ 6″			1892
16	Shrigley, James H. (Can.)	459	364	Wood	700	171′6″	31′	13′	3	1	1881
337	Sicken, M.	212	168	Wood.	350	128′10	26′	10′	3	1	1884
268	Siemans, Sir. Wm.	4344	3293	Steel.	6000	412′	48′	28′	12	4	1896
323	Sierra	4846	4287	Steel.	7500	438′	52′	28′	13	3	1906
224	Simla (Can.)	1196	730	Wood	1650	225′6″	34′ 8″	15′	6	1	1903
323	Sinaloa	4539	3503	Steel.	6800	416′	50′	28′	23	4	1903
267	Sirius	4470	3143	Steel.	6900	416′	50′	28′	12	4	1903
145	Slick, E. E.	6971	....	Steel.	10200	530′	56′	31′	32	3	1908
134	Smith, B. Lyman	4271	3017	Steel.	6300	380′	50′	28′	11	4	1903
2	Smith, Home (Can.)			Steel.	5500	346′	48′	28′			1901

134	Smith, Hulburt W...	4662	3415	Steel.	6800	414′	50′	28′	12	4	1903
134	Smith, Lyman C. ..	6200	4916	Steel.	10000	525′	55′	31′	31	3	1905
134	Smith, Monroe C. ..	4281	3016	Steel.	6300	380′	50′	28′	11	4	1903
134	Smith, Wilbert L. ...	4319	3039	Steel.	6300	380′	50′	28′	11	4	1903
298	Snyder, Wm. P.	6939	5492	Steel.	10200	530′	56′	31′	31	3	1906
298	Snyder, W. P., Jr...	8603	6650	Steel.	12200	590′	64′	33′	35	3	1912
323	Sonoma	4539	3503	Steel.	6800	416′	50′	28′	23	4	1903
323	Sonora	3914	2731	Steel.	5100	346′	48′	28′	10	5	1902
210	Sowards (Can.)	238		Wood.	500	119′6″	25′ 4″	9′ 2″			1888
307	Spokane	2356	1974	Steel.	3400	310′	38′	24′			1886
171	Squire, F. B.	4582	3694	Steel.	6800	410′	50′	28′	12	4	1903
145	Stackhouse, Powell .	6171	4919	Steel.	9500	504′	54′	30′	30	6	1905
5	Stadacona	6014	4654	Steel.	9000	480′	56′	30′	28	6	1909
258	Stafford, W. R.	686	398	Wood.	900	184′10	34′ 3″	12′ 2″	4	1	1886
162	Stanton, John	6129	4668	Steel.	9500	504′	54′	30′	30	3	1905
89	Starke, C. H.	317	266	Wood.	500	149′6″	30′	9′ 7″	3	1	1881
314	Steinbrenner, Henry	4719	3955	Steel.	6800	420′	50′	28′	13	4	1901
268	Stephenson, Geo. ...	4563	3502	Steel.	5800	408′	48′	28′	12	4	1896
315	Stephenson, I. Watson	639	501	Wood.	900	172′	35′	11′ 6″			1895
290	Stephenson, S. M. ..	546	426	Wood.	750	166′	33′	12′	4		1880
4	Stevens, Frank B. (Can.)	516	....	Wood.	625	146′	29′	11′	..	.	1867
280	Stifel, W. F.	4871	....	Steel.	7200	420′	52′	28′	12	3	1908
267	Stone, Amasa	6282	4930	Steel.	10000	525′	55′	31′	31	3	1905
224	Stormount			Wood.	2000	251′	35′ 4″	15′ 1″			1877
336	Stuart, W. (Can.) ..	....	....	Wood.	2306	251′6″	38′ 3″	21′ 3″	6	1	1883
162	Sullivan, J. J.	7077	5541	Steel.	10200	532′	56′	31′	32	3	1907
323	Sultana	3914	2731	Steel.	5100	346′	48′	28′	10	5	1902
330	Sumac	681		Steel.		160′	30′	15′			1903
268	Superior City	4795	3693	Steel.	6900	430′	50′	28′ 6″	13	6	1898
136	Superior	4544	3845	Steel.	5000	382′	50′	30′			1905
134	Sweden	4702	....	Steel.	6800	414′	50′	28′	12	4	1902

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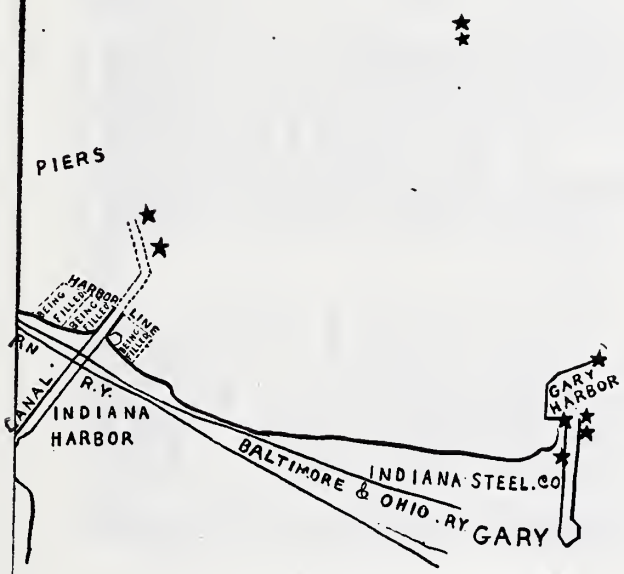

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GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Barges										
309	S. O. Co. "C"	3200		Steel.	Oil	366'	44'	22' 2"			1897
165	S. O. Co. "41" (Can.)	481		Steel.	Oil	156'6"	30'	12'			1903
255	St. Louis (Can.)	334		Wood.	500	127'7"	26' 2"	11' 9"			1877
267	Sagamore	3251	2926	Steel.	5500	366'	44'	26'	12	3	1898
262	Sands, Isabella (Can.)	230	231	Wood.		134'	29'	10' 8"			1874
177	Scotia	903	858	Wood.	1500	210'9"	34' 6"	13' 4"	7	1	1873
13	Selkirk (Can.)	719		Wood.	1200	183'	34' 5"	14' 5"			1894
142	Sherman, W. A.	519	493	Wood.	900	163'	33'	12'			1882
288	Simpson, Lucia A. ..	227	215	Wood.	425	127'	28'	8' 7"			1875
64	Skeele, E. E.		199	Wood.		122'	26'	9'			1856
268	Smeaton, John	5049	4725	Steel.	7900	446'	50'	29' 6"	15	4	1899
292	Stafford	199	189	Wood.	375	112'	25' 6"	9' 6"			1868
13	Stephenson, Isaac ..	461	438	Wood.	850	163'3"	32' 1"	11' 1"			1879
	Steamers										
267	Taylor, Moses	4772	3401	Steel.	6800	416'	50'	28'	12	4	1902
346	Taplin, Frank E. ...	4961		Steel.	7400	420'	52'	28'			1908
267	Taurus	4470	3143	Steel.	6900	414'	50'	28'	12	4	1903
2	Taylor, J. F. (Can.)	3428	2029	Steel.	5600	346'	48'	28'	10	3	1901

19	Thompson, Alexis W.	6436	4670	Steel.	9500	504′	55′	30′	30	4	1908
145	Thompson, Carmi A.	....	....	Steel.	10500	525′	58′	31′	32	3	1917
134	Thompson, Smith ...	4786	4227	Steel.	7600	438′	52′	28′	13	3	1907
47	Toiler (Can.)	1783	1334	Steel.	2800	250′	42′ 6″	19′		3	1911
162	Tomlinson, G. A. ...	6361	4862	Steel.	9500	504′	54′	30′	30	4	1909
145	Townsend, E. Y.	7438	5673	Steel.	11500	580′	58′	32′	18	3	1906
268	Trimble, Richard ...	7607	5868	Steel.	12000	580′	58′	32′	35	3	1913
136	Troy	3655	2966	Steel.		398′	45′ 6″	28′			1898
32	Truesdale, Wm. H. .	5057	3764	Steel.	7400	432′	52′	28′	24	4	1908
145	Turner, J. J.	6832	5376	Steel.	10200	532′	56′	31′	32	3	1906
	Barges										
90	Taber, Horace (Can.)	262		Wood	500	138′6″	26′ 6″	9′ 6″			1867
185	Taylor, J. V.	199	189	Wood	400	125′	26′ 2″	8′ 9″			1867
145	Thompson, A. W. ...	2279	2125	Steel.	4300	300′	42′	24′	9	3	1901
268	Thomas, Sidney G. ..	3200	2912	Steel.	5700	366′	44′	26′	11	3	1897
172	Three Brothers	349	332	Wood	650	136′6″	25′ 9″	12′			1873
224	Thrush (Can.)	584		Wood.	1100	181′	34′ 4″	11′ 7″			1890
224	Thunder Bay (Can.)	2144		Steel.	4100	302′	40′	25′	9	3	1895
253	Thurso (Can.)	153		Wood.	300	105′	22′ 5″	7′ 5″			1887
228	Tilden, S. J.	613	582	Wood.	1000	172′	32′	13′ 4″			1869
253	Todd, J. W. (Can.)..	171		Wood.	300	120′	24′	7′ 9′			1904
219	Transfer	732		Wood.	1500	200′	33′ 9″	13′ 7″	7	1	1872
219	Transport	489	460	Wood.	950	168′	31′	12′ 6″	5	1	1873
186	Troy	486	462	Wood.	850	187′4″	30′ 8″	10′ 2″	6	1	1872
144	Tuxberry, A. C.	679	645	Wood.	1300	181′	35′	13′	6	1	1890
13	Twinsisters	806	747	Wood.	1600	204′2″	35′	14′			1889
122	Tyrone	2117	1862	Steel.	4200	301′	41′	24′	9	3	1896
	Steamers										
280	Uhrig, Alex. B.	3401		Steel.	5000	360′	44′ 6″	26′ 6″			1893
145	Uhrig, Edward A. ..	6611	5049	Steel.	10200	532′	56′	31′	32	3	1907

GENERAL DIMENSIONS OF LAKE VESSELS—Continued

Fleet No.	NAME	Gross Tonnage	Net Tonnage	Built of	Carrying Capacity	Dimensions: Keel L'gth	Dimensions: Beam	Dimensions: Depth	No. H'tchs	No. Comp.	Year Built
	Steamers										
136	Underwood, F. D. ..	3314	2499	Steel		319′	44′	27′ 3″			1896
36	United Lumberman (Can.)	399	259	Wood	500	139′	31′ 6″	11′ 7″			1884
182	Upson, Andrew S. ..	4442	3120	Steel.	6300	380′	52′	29′	19	3	1909
346	Upson, J. E.	6309	4853	Steel.	9500	504′	54′	30′	30	3	1908
267	Uranus	4426	....	Steel.	6800	416′	50′	28′	22	4	1900
136	Utica	3533	2658	Steel.	4000	325′	44′	30′			1904
246	Utley, E. H.	6287	4861	Steel	9500	504′	54′	30′	30	4	1910
	Barges										
224	Ungava (Can.)	1226	1226	Steel	2100	200′	41′	19′	6		1906
	Steamers										
256	Van Allen, D. R. (Can.)	318	216	Wood.	450	136′	26′	10′			1874
224	Valcartier (Can.) ..	3755	2250	Steel.	5600	354′	48′	28′	10	4	1903
267	Vega	4382	....	Steel.	7000	420′	50′	28′	23	3	1906
232	Venezuela	2125	1733	Wood	2800	263′	42′ 6″	23′	7	1	1897
267	Venus	3719	2766	Steel.	5600	346′	48′	28′	10	3	1901
267	Verona	6186	4765	Steel.	8500	480′	52′	30′	28	4	1907
267	Victory	4527	3707	Steel.	7000	452′	48′	27′	14	5	1895
214	Viking	1117	943	Steel.	1800	217′	37′	15′	5	1	1889
224	Vinmount (Can.) ...	1759		Steel.	2900	260′	38′	23′			1889

	Barges										
13	Valencia (Can.)	543		Wood.	1000	178′	30′ 8″	13′ 2″			1888
	Vinland	965		Wood.	1500	216′	36′	13′ 4″			1896
	Steamers										
101	Wade, J. H. (Can.) .	1863	1502	Steel.	3000	266′	38′	23′	7	1	1890
334	Waffle, T. J. (Can.).	202	104	Wood.		105′	22′ 5″	8′			1914
267	Wallace, James J. ..	6684	5403	Steel.	10300	532′	56′	31′	32	3	1905
162	Walsh, James P. ...	5630	4772	Steel.	8500	480′	52′	30′	28	4	1905
19	Walters, Thomas ...	7518	5787	Steel.	11500	580′	58′	32′	36	3	1911
134	Warner, Chas. M. ...	3812	2733	Steel.	5700	370′	48′	28′	11	4	1902
323	Watson, C. W.	4306	3364	Steel.	6300	380′	50′	28′	11	4	1902
268	Watt, James	4090	3105	Steel.	5800	405′	48′	28′	12	4	1896
200	Wente, R. C.	335	267	Wood.	450	141′	30′	10′ 6″			1888
73	Wesee	2283	....	Wood.	3200	269′	42′ 3″	24′	8		1901
224	Westerian (Can.) ...	988	580	W.&S.	1100	210′	32′	15′ 2″			1871
56	Wethersfield (Can.)	1875	....	Steel.	2800	248′7″	42′	26′	5	2	1903
224	Westmount (Can.) .	....	....	Steel.	10000	529′	58′	31′	16	6	1916
72	White, Peter	6184	4931	Steel.	9500	504′	54′	30′	30	3	1905
29	White, W. F.	7180	....	Steel.	10000	530′	60′	31′	30	3	1915
24	Wickwire, Theo. H..	5141	3894	Steel.	8300	444′	56′	28′	13	3	1909
24	Wickwire, Theo. H., Jr.	6077	4927	Steel.	9700	504′	56′	30′	30	4	1910
268	Widener, Peter A.B.	7053	5444	Steel.	11500	580′	58′	32′	36	3	1906
19	Wildar, Francis	4682	3368	Steel.	7000	416′	50′	28′	12	4	1904
134	Wilkinson, H. S.	8338	6829	Steel.	12000	588′	60′	33′	35	4	1916
197	Wilkesbarre	4153	3311	Steel.	5200	381′7″	50′ 5″	28′			1900
268	Williams, Homer D.	....	....	Steel.	12000	580′	60′	32′	35	3	1917
298	Wilpen	7612	5851	Steel.	11000	554′	58′	32′	33	4	1907
186	Wilson, Mathew	322	243	Wood	450	141′4″	27′ 9″	10′ 8″			1888
346	Wilson, Capt. Thomas	4719	3959	Steel.	7000	416′	50′	28′	13	4	1900

	Steamers											
224	Windsor (Can.)	1962	1276	Wood.	2500	242′	41′	20′	8		1892
347	Winnipeg	1108	874	Wood.	1500	252′5″	35′	15′ 3″	7	1	1878
136	Wissahicken	4062	3104	Steel.	4700	350′	46′	30′			1907
160	Wolf, Wm. H. (Old).	2265	1791	Wood.	3400	285′	42′	21′	7	1	1887
317	Wolf, Wm. H.	6281	4767	Steel.	9500	504′	54′	30′	30	4	1908
267	Wolvin, Augustus B.	6585	5311	Steel.	10500	540′	56′	32′	33	1	1904
145	Wood, Joseph	6360	4922	Steel.	9500	504′	54′	30′	30	4	1910
287	Wotan	886	712	Wood	1000	191′6″	36′ 6″	13′ 6″	4	1	1893
354	Wyandotte	2450	1541	Steel.	2900	346′	45′	24′	18	3	1908
47	Wyoming	1488	934	Wood.	2200	241′	40′	14′ 6″			1887
	Barges										
253	Waters, P. (Can.) ..	179		Wood.	350	113′	24′ 2″	7′ 8″			1913
13	Warmington, G. H. (Can.)	559		Wood.	950	170′	31′ 6″	12′ 6″			1872
47	Wayne (Can.)	668	....	Wood.	1300	187′	34′ 4″	13′			1882
56	Weaver, Jennie	88	83	Wood.	150	97′6″	22′ 6″	7′			1882
328	Whale	1144	....	Wood.	....	264′	53′	14′			1892
253	Whelan, P. (Can.) ..	146		Wood.	300	108′5″	23′ 6″	8′			1902
320	White & Friant (Can.)	278	278	Wood.	700	152′	28′ 7″	11′ 3″	4	1	1881
195	Winnipeg (Can.) ...	734	681	Wood.	1300	179′5″	34′ 6″	14′ 5″			1893
172	Wisconsin	532	532	Wood.		181′	30′	20′ 6″			1882

270	Whitbeck, Henry ...	498	473	Wood.	1000	167'6"	33' 1"	11'			1880
253	Wilson, Agnes (Can.)	225		Wood.		126'	27' 3"	7' 8"			1916
13	Woodlands		618	Wood.	1100	186'	32' 6"	12' 4"			1881
22	Woolson, Mary	708	673	Wood.	1300	179'1"	34' 8"	13' 2"	5	1	1888
296	Wright, A. W.	530	507	Wood	1000	169'7"	33' 3"	10' 8"	4	1	1880
13	Winnipeg (Can.) ...	734		Wood.	1300	179'5"	34' 6"	14' 5"			1893
116	Wisconsin	532		Wood.		181'	30'	20' 6"			1882
300	Whitbeck, Henry ...	581		Wood.	1000	167'6"	33' 1"	11'			1880
	Steamers										
24	Yates, Harry	6077	4927	Steel.	9700	504'	56'	30'	30	4	1910
214	Yorkton (Can.)	1771	1136	Steel.	2800	250'	42' 6"	18' 6"	6	3	1911
286	Yosemite	3879	3044	Steel.	5600	356'	50'	28'	10	3	1901
	Barges										
66	York State	277	256	Wood.	500	134'	28' 4"	11'			1869
	Steamers										
268	Zelsing, August	....	....	Steel.	12000	580'	60'	30'	35	3	1917
268	Zenith City	3850	....	Steel.	5800	387'	48'	28'	11	4	1895
22	Zillah	748	583	Wood	1100	201'8"	37'	13'	4	1	1890
	Barges										
141	Zapotec	811		Wood.	1500	204'7"	34' 7"	14' 6"			1890

CAR FERRIES OF

Fleet No.	STEAMERS	Net Tonnage	Gross Tonnage	Built of	DI Keel Length
7½	Str. Ann. Arbor No. 3	996	1677	Steel.	259′
7½	Str. Ann Arbor No. 4	1082	1884	Steel.	259′
7½	Str. Ann Arbor No. 5	1961	2884	Steel.	378′
7½	Str. Ann Arbor No. 6	2756	....	Steel.	338′
263	Str. Ashtabula	1525	2670	Steel.	338′
28	Str. Chief Wawatam	1793	2990	Steel.	332′
132	Str. Detroit	1307	2089	Steel.	284′
131½	Str. Grand Haven	1643	2320	Steel.	306′
132	Str. Great Western (Can.)	662	1080	Iron..	220′
132	Str. Huron (Can.)	688	1052	Iron..	238′ 5″
265	Str. International (Can.)	851	....	Comp.	210′
132	Str. Lansdowne (Can.)	908	1571	Iron..	294′
51	Str. Lyon, Charles (Can.)	1127	1600	Steel.	248′
325	Str. Maitland No. 1	..	5757	Steel.	338′
203	Str. Marquette & Bessemer No. 1	998	1732	Steel.	241′
203	Str. Marquette & Bessemer No. 2	1516	2583	Steel.	338′
53	Str. Michigan	1615	1730	Steel.	297′
319	Str. Michigan Central	999	1522	Iron..	263′
131½	Str. Milwaukee	1755	2933	Steel.	338′
53	Str. Ontario (Can.)	1018	1615	Steel.	297′
249	Str. Ontario No. 1 (Can.)	....	5146	Steel.	306′
249	Str. Ontario No. 2 (Can.)	....	5568	Steel.	307′ 6″
265	Str. Pere Marquette	1634	2443	Steel.	338′
265	Str. Pere Marquette No. 14	1655	2531	Steel.	350′
265	Str. Pere Marquette No. 17	1685	2775	Steel.	338′
265	Str. Pere Marquette No. 18	1660	2777	Steel.	338′
265	Str. Pere Marquette No. 19	1548	2626	Steel.	338′
265	Str. Pere Marquette No. 20	1495	2626	Steel.	338′
132	Str. Transfer	1060	1511	Steel.	265′
132	Str. Transport	797	1594	Iron..	254′

THE GREAT LAKES

MENSIONS				
Beam	Depth	Year Built	By Whom Built	Where Built
52′	18′ 6″	1898	Globe Iron Works.	Cleveland, Ohio.
52′	19′	1906	American Ship Building Co.	Cleveland, Ohio.
56′	21′	1910	Toledo Ship Building Co.	Toledo, Ohio.
56′	20′ 6″	1917	Great Lakes Eng. Works.	Ecorse, Mich.
56′	20′ 6″	1906	Great Lakes Eng. Works.	St. Clair, Mich.
62′	25′	1911	Toledo Ship Building Co.	Toledo, Ohio.
64′	19′ 6″	1904	Great Lakes Eng. Works.	Ecorse, Mich.
54′	20′	1903	Craig Ship Building Co.	Toledo, Ohio.
40′ 2″	13′	1866	Grand Trunk Ry. Co.	Windsor, Ont.
53′ 9″	12′ 8″	1875	Smith.	Pt. Edward, Ont.
41′ 3″	13′	1884	Detroit Dry Dock Co.	Detroit, Mich.
40′	22′	1907	Polson Iron Works.	Toronto, Ont.
56′	20′ 6″	1916		
43′	21′ 6″	1904	Buffalo Ship Building Co.	Buffalo, N. Y.
56′	19′ 6″	1910	American Ship Building Co.	Cleveland, Ohio.
41′	15′	1891	F. W. Wheeler & Co.	W. Bay City, Mich.
40′	12′ 8″	1872	.....	Fort Erie, Ont.
45′ 6″	15′ 6″	1884	Detroit Dry Dock Co.	Wyandotte, Mich.
56′	19′ 6″	1903	American Ship Building Co	Cleveland, Ohio.
41′ 3″	14′ 9″	1891	Polson Iron Works.	Toronto, Ont.
54′	20′ 6″	1907	Canadian Ship Building Co.	Toronto, Ont.
54′	20′ 6″	1915	Polson Iron Works.	Owen Sound, Ont.
52′	21′	1904	Detroit Ship Building Co.	Detroit, Mich.
56′	28′	1896	F. W. Wheeler & Co.	W. Bay City, Mich.
56′	19′ 6″	1901	American Ship Building Co.	Cleveland, Ohio.
56′	19′ 6″	1910	American Ship Building Co.	Chicago, Ill.
56′	19′ 6″	1903	American Ship Building Co.	Cleveland, Ohio.
56′	19′ 6″	1903	American Ship Building Co.	Cleveland, Ohio.
45′ 6″	17′	1888	Cleveland Ship Bldg. Co.	Cleveland, Ohio.
46′	14′ 9″	1880	Detroit Dry Dock Co.	Wyandotte, Mich.

PASSENGER BOATS OF THE GREAT LAKES—Continued.

Fleet No.	VESSEL	Gross Tonnage	Built of	Keel Length	Beam	D	Year Built
128	Ada Alice (Can.)	60	Wood	66′ 5″	13′ 2″	17′ 6″	1789
129	Alabama	2626	Steel	250′	44′	17′	1910
52	Alberta (Can.)	2828	Steel	296′ 5″	38′ 2″	23′ 3″	1883
47	Aletha (Can.)	171	Wood	107′ 4″	19′ 7″	5′ 5″	1901
168	Algoma (Can.)	107	Wood	104′	26′ 3″	11′	1901
28	Algomah	486	Wood	127′	33′	11′	1881
329	America	937	Wood & Steel	182′ 6″	27′	13′	1898
47	America (Can.)	521	Wood & Iron	153′ 2″	33′ 2″	6′ 4″	1895
189	Americana	969	Steel	203′	45′	16′	1908
335	Areil	302	Wood	95′	29′	11′	1881
129	Arizona	1041	Wood	203′	40′	20′ 2″	1889
291	Arrow	365	Wood & Steel	165′	28′	17′ 6″	1895
52	Assiniboia (Can.) ...	3879	Steel	336′	43′ 6″	26′ 6″	1907
52	Athabasca (Can.) ..		Steel	298′ 8″	38′ 2″	23′ 3″	1883
37	Agwinde (Can.)	370	Steel	105′	22′ 5″	4′	1900
331	Alexandra (Can.) ...	417	Wood	148′	45′ 4″	8′ 1″	1903
201	Armenia (Can.)	467	Wood	176′ 2″	25′	11′ 5″	1873
230	Auger Anotini (Can.)	328	Wood	120′	23′	7′ 2″	1907
240	Bain, Jessie (Can.)..	67	Wood	70′ 8″	14′ 8″	5′	1888
168	Bawating (Can.)	199	Wood	104′	29′	22′	1875
139	Beauharnois (Can.) .	167	Wood	130′ 5″	18′ 3″	7′ 1″	1845
244	Belle of Lamagami (Can.)	169	Wood	100′	22′ 6″	6′ 2″	1906
301	Bon Ami (Can.)	227	Wood	102′	22′	5′ 8″	1876
225	Britannia (Can.)	428	Wood	160′ 8″	25′ 6″	9′ 2″	1866
233	Canada	551	Wood	135′ 2″	24′ 2″	11′ 5″	1872

273	Beard, James	87	Wood	73′	17′	6′	1873
47	Bellville (Can.)	1223	Iron	200′ 8″	28′	11′	1864
324	Bluebell (Can.)	12	Wood	48′ 5″	8′ 9″	3′ 6″	1888
57	Boeckling, G. A.	328	Steel	140′	30′	9′	1909
229	Bon Ami	227	Wood	108′	22′	5′ 8″	1876
94	Boucherville (Can.)	419	Wood	178′ 9″	26′ 3″	9′ 2″	1886
97	Britannia	791	Steel	164′	45′	17′ 9″	1906
47	Brockville (Can.) ...	191	Wood	105′	21′ 5″	5′ 7″	1898
189	Canadiana	974	Steel	203′	45′	16′	1910
87	Caribou (Can.)	596	Wood	150′	27′	12′	1904
108	Carolina	1304	Iron	220′	40′	21′	1892
163	Caspian (Can.)	957	Iron	177′ 6″	43′ 4″	6′ 7″	1846
331	Castor (Can.)	88	Wood	66′	22′	5′ 2″	1907
204	Cayuga (Can.)	2167	Steel	306′	36′ 6″	15′	1906
224	Chance (Can.)	5	Wood	43′ 1″	7′ 1″	3′ 6″	1895
230	Charlie M. (Can.)...	50	Wood	74′ 5″	11′	5′	1897
296	Chicora (Can.)	930	Wood	221′	26′	10′ 9″	1864
236	Chippewa (Can.)	1514	Wood & Steel	308′ 5″	36′ 3″	12′ 5″	1893
9	Chippewa	453	Iron	201′	28′	12′	1884
98	City of Alpena II....	1735	Wood & Steel	266′	38′ 4″	24′	1893
130	City of Benton Harbor	1286	Steel	248′	37′	15′ 6″	1904
74	City of Buffalo	2940	Wood & Steel	340′ 3″	43′ 5″	17′ 4″	1896
285	City of Sady Smith (Can.)	35	Wood	69′ 6″	16′	5′ 2″	1900
308	City of Chatham (Can.)	362	Wood	125′ 6″	31′ 5″	9′	1888
273	City of Cheboygan...	247	Wood	98′	29′ 9″	10′	1890
98	City of Cleveland III	4568	Steel	402′	54′	22′	1907
98	City of Detroit II....	1919	Wood & Steel	286′	41′	25′ 8″	1889
98	City of Detroit III ...	6061	Steel	472′	55′	22′	1912
80	City of Dover (Can.)	81	Wood	74′ 8″	20′ 4″	7′	1916
74	City of Erie	2498	Wood & Steel	316′	44′	29′	1898

PASSENGER BOATS OF THE GREAT LAKES—Continued

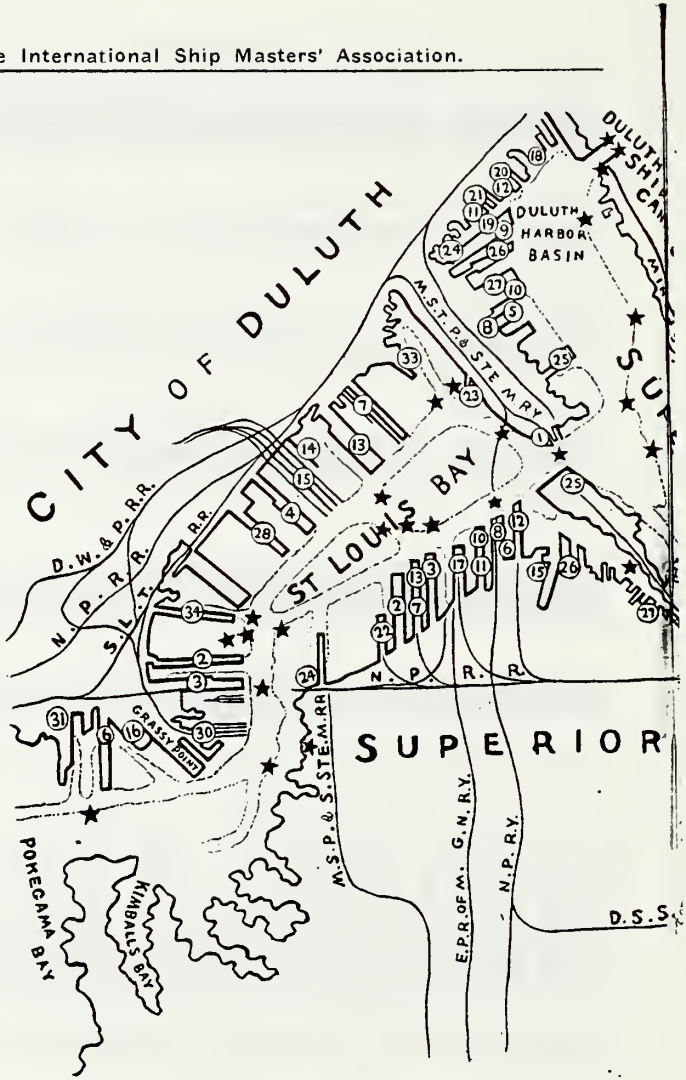
Fleet No.	VESSEL	Gross Tonnage	Built of	Keel Length	Beam	Depth	Year Built
130	City of Grand Rapids	3061	Steel	291′	48′	27′	1912
88	City of Hailey (Can.)	38	Wood	67′	12′ 3″	6′ 7″	1808
49	City of Hamilton	1574	Wood & Steel	220′	32′ 5″	14′	1871
82	City of London (Can.)	110	Wood	84′	18′	5′ 5″	1886
153	City of Marquette	341	Wood & Steel	266′	38′	24′ 4″	1893
98	City of Mackinac II.	1749	Wood	114′	25′	9′	1890
47	City of Ottawa (Can.)	1529	Wood & Iron	220′	32′ 5″	14′	1871
68	City of So. Haven	1719	Steel	232′	40′	16′	1903
98	City of St. Ignace	1923	Wood & Steel	272′	40′	25′ 6″	1886
130	City of St. Joseph	1439	Wood & Steel	254′	34′	24′	1890
341	City of Toledo	1003	Wood & Steel	212′	31′ 6″	22′ 3″	1891
259	Clark, Alfred (Can.)	227	Wood	110′	24′	7′ 6″	1887
303	Clark Brothers (Can.)	92	Wood	80′	16′ 2″	5′ 5″	1890
127	Cleopatra (Can.)	104	Wood	113′ 5″	16′ 9″	9′ 2″	1893
198	Colomb (Can.)	559	Wood	120′ 6″	34′	15′ 5″	1910
284	Columbia	139	Wood	109′	21′ 6″	16′ 3″	1893
197	Columbia	968	Steel	216′	45′	12′ 6″	1902
199	Columbia	255	Wood	133′ 6″	29′	9′	1885
129	Columbus, Christopher	1511	Steel	348′	42′	24′	1893
273	Conger, O. D.	199	Wood	92′	26′	11′	1882
236	Carona (Can.)	1274	Steel	270′ 3″	32′ 5″	12′ 5″	1896

237	Dalhousie City (Can.)	1256	Steel	199′ 8″	37′	20′ 7″	1911
273	Dormer, Grace	65	Wood	71′	17′ 6″	5′ 6″	1868
183	Duchess of York (Can.)	490	Steel	156′ 8″	25′ 3″	9′ 4″	1889
98	Eastern States	3077	Steel	350′	45′ 3″	19′ 6″	1902
9	Elva	81	Wood	71′	18′	16′ 6″	1889
342	Empress (Can.)	678	Iron	185′ 3″	27′ 6″	16′	1873
225	Emerald (Can.)	385	Wood	140′	21′ 7″	6′ 8″	1903
97	Excelsior	229	Wood	116′	25′	13′ 6″	1876
335	Essex	266	Steel	94′	36′	14′ 7″	1913
225	Filgate (Can.)		Steel	175′	39′ 6″	9′ 6″	1891
299	Forest City (Can.)	571					
331	Fraser, Alexander (Can.)	320	Wood	140′	41′	7′ 5″	1890
205	Garden City (Can.)	637	Steel	177′ 9″	26′	10′	1892
97	Garland	248	Wood	107′	29′	12′	1880
129	Georgia	895	Wood	196′	34′ 6″	20′	1880
169	Glen Allen (Can.)	276	Comp.	104′	25′	9′	1912
331	Green, G. B. (Can.)	259	Wood	133′ 2″	44′ 8″	8′	1896
169	Glenn	277	Wood	108′	22′	17′	1889
195	Gray, G. R. (Can.)	268	Steel	115′ 7″	24′ 8″	12′ 6″	1917
341	Greyhound	1392	Steel	276′	38′	15′	1902
47	Hamilton (Can.)	937	Iron	175′ 2″	25′ 2″	10′ 8″	1895
331	Hamilton (Can.)	320	Steel	341′	50′	35′	1909
47	Hamonic (Can.)	5264	Steel	341′	50′	35′	1909
303	Hanlan, John (Can.)	37	Wood	71′	16′	6′	1884
316	Hart, Eugene C.	522	Wood	152′	25′	18′	1890
149	Harrison (Can.)	222	Wood	120′	22′ 2″	10′ 6″	1909
27	Hayes, R. B.	164	Wood	134′	21′	7′	1876
172	Hazel	66	Wood	87′	18′	14′	1879
273	Hiawatha (Can.)	163	Wood	92′ 7″	20′	7′ 6″	1874
166	Huron	538	Wood & Iron	200′	32′	21′	1885
47	Huronic (Can.)	3329	Steel	308′	43′	27′	1902

PASSENGER BOATS OF THE GREAT LAKES—Continued

Fleet No.	VESSEL	Gross Tonnage	Built of	Keel Length	Beam	Depth	Year Built
352	Illinois	2427	Steel	225′	40′	26′	1899
129	Indiana	....	Wood	223′	35′	24′	1890
	International (Can.)	95	Wood	182′	30′	10′	1881
324	Island Queen (Can.)	23	Wood	73′	13′ 9″	4′ 4″	1889
157	Island Belle	235	Wood	100′ 5″	20′ 6″	5′ 8″	1897
9	Islander	291	Wood	139′	23′	17′	1895
230	Islander (Can.)	165	Wood	100′	17′ 4″	5′ 7″	1900
324	Jasmine (Can.)	298	Wood	112′ 4″	21′ 9″	7′ 4″	1892
206	Jaska (Can.)	189	Wood	108′	24′ 4″	7′ 3″	1909
161	Joe (Can.)	57	Wood	65′	13′	4′ 9″	1900
136	Juniata	4333	Steel	340′	45′	28′	1905
215	Kansas	835	Wood	185′	33′	19′	1876
52	Keewatin (Can.)	3856	Steel	336′	43′ 6″	26′ 6″	1907
47	Kingston (Can.)	2925	Steel	288′	36′ 2″	13′ 3″	1901
10	Kirby, Frank E.	532	Iron	195′	30′	20′	1890
156	Lakeside (Can.)	348	Wood	121′	26′	9′ 3″	1888
191	Lewis, Elgin (Can.)	50	Wood	70′	12′ 3″	5′	1904
78	Liberty	143	Wood	97′	19′	13′ 6″	1889
324	Luella (Can.)	38	Wood	66′	13′ 3″	6′	1880
236	Macassa (Can.)	459	Steel	154′ 4″	24′	16′ 3″	1888
52	Manitoba (Can.)	2616	Steel	303′	38′	24′ 6″	1889
102	Manitou (Can.)	470	Wood	137′ 2″	24′ 2″	9′ 1″	1903
324	Mayflower (Can.)	189	Steel	140′ 2″	28′ 2″	6′ 8″	1890
303	Mazeppa (Can.)	146	Wood	101′	20′	5′ 7″	1884
153	McVey, Charles	331	Wood	132′	26′	17′ 6″	1889
241	Michipicotin (Can.)	511	Wood	117′	24′ 8″	11′	1883

202	Maid of the Mist (Can.)	62	Wood	71′ 1″	16′ 1″	6′ 6″	1885
244	Marie (Can.)	4	Wood	33′ 5″	8′ 5″	3′	1902
226	Mary Ethel	55	Wood	61′ 3″	17′ 6″	6′ 6″	1912
152	Minnie M. (Can.)	613	Wood	140′	30′	10′	1884
215	Missouri	2434	Steel	225′	40′	16′	1904
236	Modjeska (Can.)	678	Steel	178′	31′	12′ 3″	1889
47	Montreal (Can.)	4282	Steel	332′ 4″	43′ 5″	14′ 8″	1904
47	Murray Bay (Can.)	969					
47	News Boy	199	Wood	104′	22′	6′	1889
54	Niagara (Can.)	396	Iron	159′	21′	10′ 4″	1856
268	Niagara Frontier	421	Steel	121′	38′	14′	1910
230	Nipissing (Can.)	275	Wood	125′	21′	7′ 6″	1887
47	Noronic (Can.)	6905	Steel	362′	52′	28′ 9″	1913
67	North American	2317	Steel	259′	47′	18′ 3″	1913
190	North King (Can.)	873	Wood	175′	43′	10′	1868
242	Northern Belle (Can.)	222	Wood	104′	21′ 6″	7′ 6″	1905
93	North Land	4244	Steel	358′	44′	24′	1895
136	Octorora	4329	Steel	340′	45′	28′	1910
212	Ongiara (Can.)	98	Wood	90′ 5″	18′ 4″	5′ 4″	1885
62	Ossifrage (Can.)	303	Wood	161′ 6″	27′ 8″	9′	1886
341	Owana	747	Wood & Steel	200′	32′	20′	1899
235	O'Brien, M. J. (Can.)	159	Wood	100′	24′ 5″	4′	1909
260	Oisean (Can.)	148	Wood	120′	22′ 8″	7′	1897
230	Oriole (Can.)	75	Wood	75′	14′ 5″	4′ 4″	1886
38	Orleans (Can.)	269	Wood	118′	28′	9′ 2″	1898
33	Potter 2d G. B. (Can.)	51	Wood	61′ 5″	17′ 7″	6′ 1″	1904
43	Parthea (Can.)	198	Wood	126′ 8″	38′ 3″	7′ 1″	1896
349	Pelee (Can.)	538	Steel	137′	24′	11′ 3″	1914
312	Pennsylvania (Can.)	428	Wood	158′	35′ 4″	8′ 4″	1901
264	Pere Marquette No. 3	924	Wood	190′	33′	22′	1887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DULUTH HARBOR BASIN
DULUTH SHIP CANAL
M.S.T.P.& STE M.RY.
D.W.& P.R.R.
N.P.R.R.
S.L.T.R.R.
GRASSY POINT
N.P.R.R.
M.S.P.& S.STE.M.RR
E.P.R.OF M.
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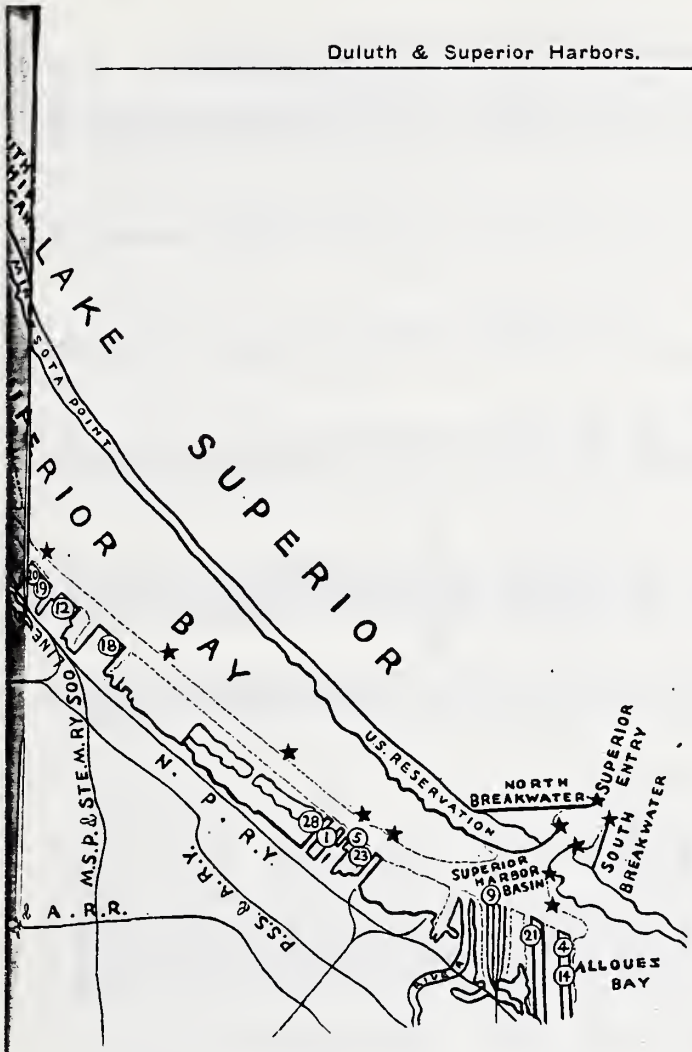
D.S.S.
POKEGAMA BAY
KIMBALLS BAY



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PASSENGER BOATS OF THE GREAT LAKES—Continued

Fleet No.	VESSEL	Gross Tonnage	Built of	Keel Length	Beam	Depth	Year Built
264	Pere Marquette No. 4	941	Wood	186′	34′ 6″	22′	1888
264	Pere Marquette No. 6	371	Wood	125′	27′	9′ 6″	1888
264	Pere Marquette No. 8	691	Wood	171′	35′	20′	1888
86	Petosky	770	Wood	171′	30′	20′	1888
154	Phelps, M. G.	99	Wood	110″	21′ 5″	9′ 6″	1915
352	Philippe, Louis (Can.)	600	Steel	162′	37′	12′ 3″	1914
	Pierrepont (Can.)	252	Wood & Iron	123′	18′ 8″	7′ 1″	1871
352	Pilgrim	1921	Iron	209′	40′	20′ 9″	1881
117	Pilgrim (Can.)	262	Wood	122′	22′ 4″	7′ 4″	1884
275	Polaris (Can.)	533	Wood	118′ 5″	31′ 4″	16′ 5″	1883
331	Pollux (Can.)	88	Wood	66′	22′	5′ 2″	1907
331	Powell, C. B. (Can.)	272	Wood	139′	36′	7′ 2″	1887
131	Prefontaini (Can.)	899	Wood	202′	31′ 6″	8′	1896
77	Premier (Can.)	337	Wood	130′	25′ 2″	9′	1888
97	Pleasure	489	Wood	128′	39′	13′ 7″	1894
199	Plow Boy	114	Wood	78′	21′	6′	1887
47	Plumb, Henry	92	Wood	79′	18′	6′	1874
97	Pontiac	229	Wood	116′	25′	13′ 6″	1876
324	Primrose (Can.)	189	Steel	140′	28′	6′ 8″	1890
97	Promise	473	Wood	119′	38′	15′	1892
352	Puritan	1762	Steel	260′	40′	24′ 6″	1901
10	Put-in-Bay	1182	Steel	227′	46′	17′ 3″	1911
47	Quebec (Can.)	3453	Steel	303′	39′	12′	1906

47	Ramona	57	Steel	95′	13′	7′	1886
161	Ramona (Can.)	102	Wood	77′ 4″	19′	5′	1894
47	Rapids King (Can.)	1801	Steel	230′	40′ 7″	10′	1907
47	Rapids Prince (Can.)	1384	Steel	196′ 6″	37′	9′ 8″	1910
47	Rapids Queen (Can.)	1307	Steel	194′ 4″	33′ 3″	8′ 8″	1892
282	Rideau King (Can.)	266	Wood	107′	23′ 4″	6′	1893
282	Rideau Queen (Can.)	351	Wood	108′	27′ 3″	6′ 9″	1900
75	Roosevelt, Theo.	1955	Steel	264′	40′	16′	1906
47	Rochester	1603	Steel	246′ 6″	42′	14′ 9″	1910
47	Saguenay (Can.)	2777	Steel	258′	40′	14′ 9″	1911
230	Sagamo (Can.)	744	Wood	152′	29′	9′ 7″	1906
150	Sailor Boy	162	Wood	91′	24′	6′ 6″	1891
97	Sappho	223	Wood	107′	31′	13′	1883
74	Seeandbee	6381	Steel	485′	58′	23′ 6″	1913
70	Soo City (Can.)	500	Wood	135′	25′	9′	1889
67	South American		Steel	291′	47′	18′	1914
74	State of Ohio	1221	Wood & Iron	225′	32′	22′	1880
97	Ste. Clarie	870	Steel	181′	50′	17′ 6″	1910
47	St. Irenee (Can.)	1768	Iron	248′	31′	11′	1866
47	St. Lawrence (Can.)	312	Wood	154′	21′	7′	1884
47	Syracuse (Can.)	2105	Steel	205′ 6″	43′ 6″	11′ 6″	1911
47	Tadausac (Can.)	1071	Wood	248′ 4″	34′ 7″	9′ 6″	1879
341	Tashmoo	1344	Steel	306′	36′	22′ 3″	1900
150	Thistle	49	Wood	80′	14′	6′	1887
47	Thousand Islander	355	Steel	164′	32′	9′ 6″	1912
136	Tionesta	4329	Steel	340′	45′	28′	1903
47	Toronto (Can.)	2779	Steel	269′ 4″	36′	13′ 8″	1899
324	Trillium (Can.)	673	Steel	135′	30′	8′ 4″	1910
47	Trois Rivieres (Can.)	1449	Iron	219′ 8″	32′	9′ 6″	1869
236	Turbinia (Can.)	1064	Steel	250′	33′	13′	1904
47	Varuna (Can.)	134	Wood	94′ 4″	17′	5′ 1″	1880
97	Victoria	192	Wood	96′	28′	11′ 6″	1872
333	Victoria (Can.)	181	Wood	100′	21′	5′ 6″	1899

PASSENGER BOATS OF THE GREAT LAKES

Fleet No.	VESSEL	Gross Tonnage	Built of	Keel Length	Beam	Depth	Year Built
331	Wabis (Can.)	77	Wood	66′	23′ 1″	5′	1911
47	Water Lily (Can.) ..	136	Wood	97′ 1″	19′ 2″	7′ 8″	1891
39	Water Lily (Can.) ..	54	Wood	80′ 1″	12′	5′ 2″	1897
28	Wau-Kon	137	Wood	95′	19′	16′	1883
47	Waubic (Can.)	504	Steel	135′	25′	9′	1909
341	Wauketa	903	Steel	175′	38′ 4″	14′	1908
112	Webster, John	136	Wood	101′ 1″	26′ 2″	7′ 2″	1917
79	Wehrle, A., Jr.	421	Wood	148′	26′ 6″	9′	1888
98	Western States	3077	Steel	350′	45′ 3″	19′ 6″	1902
226	Wilson, Anna C.	83	Wood	91′	20′ 4″	6′ 5″	1912
20	Woods, Frank	384	Wood	120′	26′	18′	1888

LAKE VESSELS WHOSE NAMES HAVE BEEN CHANGED.

	New Names	Old Names
S S.	Adams, Cuyler	Sahara
S S.	Advance	Sir L S Tilley
S S.	Agassiz, R L	Wm A Hawgood
S S.	Agnes W	Roswell P Flower
S S.	Amazon	Amazon (Sch)
S S.	Arcturus	James B Wood
S S.	Argus	H S Holden
S S.	Arizona	City of Racine
Sch.	Arthur	G C Trumpff
Bge.	Arthur	D P Rhodes
Tug	Ashland	A C VanRaalte
S S.	Atikokan	John B Trevor
Bge.	Atlasco	Russel Sage (Str)
Bge.	Aurora	Aurora (Str)
S S.	Australia	Australia (Sch)
Tug	Barr, E C	Smith
S S.	Bacoi	Calgary
S S.	Barnum, G G	Socapa
S S.	Barth, L L	S S Wilhelm
S S.	Belgium	H S Wilkenson
S S.	Bickerdike	Arabia
S S.	Billings, Frank	Champlain
S S.	Binghamton	J H Jewett
S S.	Block, Joseph	Arthur H Hawgood
S S.	Booth, Edwin L	D M Whitney
S S.	Breitung, Charlotte G	Yale
S S.	Breitung, Edward N	Moore, John W
Bge.	Brookdale	Moravia
S S.	Brown, Fayette	Chas. Hutchinson
S S.	Brown, Harvey H	Harry A Berwind
S S.	Burnham, Geo	Flora Webster
S S.	Cabotia	Hiawatha
S S.	Cadillac	Steel King
S S.	Caledonia	W B Morley
S S.	Campbell, J A	Alton C Dustin
S S.	Canobie	Iron King
S S.	Canopus	George H Russel
S S.	Carbray, Felix	John C Gault
S S.	Carolina	C H Hackley
S S.	Cataract	Cataract (Bge)
S S.	Central West	J J McWilliams
S S.	Cepheus	F W Gilchrist
S S.	Cetus	Henry S Sill
S S.	City of Hamilton	Japan
S S.	City of Ottawa	India
S S.	City of St. Ignace	City of Cleveland
S S.	City of St. Joseph	City of Chicago
S S.	Clarke, E A S	H P Bope
S S.	Colin W	Stanstead
S S.	Collins, E C	Edw F Holmes
S S.	Columbia	Mascotte

	New Names Old Names
S S.	Compton—Eastwood
Tug	Conqueror—Wm L Proctor
S S.	Cooke, Delos W—Starrucca
Bge.	Corry, Mike—J O Thayer
S S.	Cort, Henry—Pillsbury
S S.	Corvus—J L Weeks
Bge.	Crane, J L—Theo S Fassett
S S.	Crawford, G G—LeGrand DeGraff
S S.	Croft, Harry W—Fred G Hartwell
S S.	Crosby, E G—Naomi
S S.	Cygnus—J C Gilchrist
Bge.	Cyrenian—Prussia
S S.	Dawson, Sir Trevor—W C Moreland
S S.	Derbyshire, Senator—Bermuda
S S.	Dimmick, J. K—Admiral
S S.	Doric—Tadousac
S S.	Eads, J B—Globe
Bge.	Eddy, John F—John F Eddy (Str)
Bge.	Egan, Wiley M—Wiley M Egan (Str)
S S.	Eric W—Harry E Packer
S S.	Fairfax—Ionia
S S.	Fellowcraft—Robert Mills
S S.	Filbert, Wm J—Wm M Mills
S S.	Fleetwood—Wm H. Gratwick
S S.	Follette, James W—Jess H Farwell
S S.	Franz, W C—Uranus
Bge.	Freeport—E P Beals
S S.	Georgia—City of Ludington
S S.	Glenfinnan—Minnetonka
S S.	Glenisla—Western Star
S S.	Glenlivet—Wawatam
S S.	Glenlyon—Minnekahta
S S.	Glenmount—Omega
S S.	Glenorchy—A E Stewart
S S.	Glenshee—Howard M. Hanna, Jr
S S.	Gorizia—Glenmount
S S.	Grand Island—Eugene Zimmerman
S S.	Hall, Henry B—Iron Duke
T S.	Harriet B—Pere Marquette No. 16
S S.	Harvey, A F—Wisconsin
S S.	Harvey, F E—John Roberts
S S.	Hazard, F R—Ontario
S S.	Hazard, W A—John Schroeder
S S.	Hennepin—Geo H Dyer
S S.	Hettler, Herman H—Walter Vail
S S.	Holcomb, Ralph T—Isaac Lincoln
S S.	Home Smith—Wm S Mack
S S.	Horn, Chas—Peters
Sch.	Hossack, W D—Bertha Barnes

	New Names	Old Names
S S.	House, Francis E	William B Kerr
S S.	Howard W	John Duncan
S S.	Hubbard, C Russell	Henry A Hawgood
S S.	Huron	Darius Cole
Sch.	Hutt, Hattie	F B Stockbridge
S S.	Hydrus	M A Hanna
S S.	Indus	Lake Shore
S S.	Ionic	Cuba
S S.	Iroquois	Tadenac
S S.	Inland	I W Nicholas
Ltr.	Isabelle H	McCormick
S S.	Jex, H N	Frontenac
S S.	Jacob, C W	City of Paris
S S.	Joyland	W A Haskell
S S.	Jones, Harry R	D G Kerr
S S.	Kansas	City of Charlevoix
Bge.	Kennedy, W L	Saronic
Bge.	King, A B	Teutonia
S S.	Kinney, A T	Caldera
S S.	Lakeland	Cambria
S S.	Lakeport	Boston
S S.	Laketon	Saxona
S S.	Lakewood	Syracuse
S S.	Leopold, N F	W R Woodford
S S.	Lewiston	S E Peck
S S.	Liberty	Phenix
Bge.	Liberty	City of the Straits
Tug	Lucknow	Onaping
S S.	Lupus	Gilchrist
Bge.	McAvoy, H J	A Stewart
S S.	McCullough, C H, Jr	Ward Ames
S S.	McCullough, John G	S C Reynolds
S S.	McLean, John H	Bransford
S S.	McLouth, Peirce	Hugh R Havey
S S.	Major	John Mitchell
S S.	Malton	E M Peck
S S.	Marion W	Byron Whitaker
S S.	Marquette	E L Wallace
S S.	Marse	E A S Clarke
S S.	Marshall, Maggie	William Crippen
S S.	Martian	Mars
S S.	Mataafa	Pennsylvania
S S.	Meaford	Newmount
Tug	Melbourne	City of Holland
S S.	Michipicoten	City of Windsor
S S.	Mills, D W	Sparta
S S.	Milwaukee	M M & N I
S S.	Mitchell, G A	Edw. Smith
S S.	Mitchell, Pentecost	H B Hawgood
S S.	Morris, Effingham B	Josiah G Munro
S S.	Morrow, John F	Edw N Breitung
S S.	Mueller	Edwin S Tice
S S.	Muriel, W	Veronier
S S.	Munising	F M Osborne
S S.	Mooremack	Jessie Spalding

	New Names	Old Names
S S.	Natironco	Pioneer
S S.	Negaunee	E N Saunders
S S.	Neilson, J B	Washburn
S S.	Nessen, N J	H L Worthington
S S.	Newbold, Arthur E	Jas Corrigan
S S.	Oakes, Herbert K	Milinokett
S S.	Oatland	W J Averell
S S.	Osborne, A W	Andrew Carnegie
S S.	Owana	Pennsylvania
S S.	Overland	Kongo
S S.	Paipoonge	Corona
S S.	Paisley, Robert R	Geo L Craig
S S.	Pegasus	W H Gratwick
S S.	Pere Marquette 6	Mark B Covell
S S.	Perseus	F J Hecker
S S.	Peters	Jim Sheriffs
S S.	Philbin, D M	Sylvania
S S.	Pierce, E L	St Clair
S S.	Polynesia	Polynesia (Sch)
Tug	Pringle, Robt C	Pere Marquette 7
S S.	Pringle, Walter R	Superior
S S.	Recor, E P	F S Faxton
S S.	Reeb, M A	Kensington
S S.	Regulus	J J Albright
S S.	Clemens A	F T Heffelfinger
S S.	Reiss, Otto M	F B Wells
S S.	Reiss, Richard J	Geo W. Peavey
S S.	Reiss, Wm A	F H Peavey
Bge.	Rend, W P	W P Rend (Str)
Bge.	Rene, J G	Ceylon
S S.	Replogle, J Leonard	Chas Weston
S S.	Richard W	Pueblo
S S.	Richardson, Granville A	Geo J Gould
S S.	Richardson, R R	Jenks J M
S S.	Richardson, W C	Wainwright
Bge.	Richland Daisy	Paisley
S S.	Richland Queen	Amazonas
S S.	Richland Starr	Chas A Luck
Bge.	Rickarton	Chippewa
S S.	Riverton	L C Waldo
S S.	Robbins, S H	H W Oliver
S S.	Roberts, Wm T	E D Carter
S S.	Robinson, C S	Loftus Cuddy
S S.	Rock Ferry	Merrimac
S S.	Rolph, John	Resolute
Bge.	Sagamore	David Z Norton
S S.	Sarnian	Chili
S S.	Sarnor	Britannic
S S.	Saronic	United Empire
S S.	Saturn	Walter Scranton
S S.	Saunders, Edward N, Jr.	Abraham Stearn

	New Names Old Names
S S.	Schneider, Cletus—Thomas Adams
S S.	Seither, Frank—R W England
Bge.	Senlim—Uranus
S S.	Shrias, MacGilvray—Umbria
S S.	Sirius—R L Ireland
Sch.	Skeele, Edward E—John Mee
S S.	Slick, Edwin F—Meacham, D B
S S.	Soo City—Mabel Bradshaw
S S.	Sowards—Rand
S S.	State of New York—City of Mackinac
S S.	State of Ohio—City of Alpena
S S.	Staples, Gale—Caledonia
S S.	Stevens, Frank B—St Joseph
S S.	Stifel, Wm F—Normania
S S.	Stuart W—Collinge
S S.	Stormount—Avon
S S.	Sweden—L C Smith
S S.	Syracuse—Geronia
Sch.	Taber, Horace—Amoskeag
S S.	Taurus—Perry G Walker
S S.	Taylor, J Frater—Saturn
Bge.	Thunder Bay—Malta
S S.	Turner, J J—J Q Riddle
S S.	Thom, John S—Henry R. James
S S.	Underwood, F D—Ramapo
S S.	Uhrig, Edward A—Sheldon Parks
S S.	Uranus—W E Reis
S S.	Usona—Chas Beatty
S S.	Uhrig, A B—Centurion
S S.	Valcartier—Wm H Mack
S S.	Vega—Pendennis White
S S.	Warren, Homer—Atlantic
S S.	Wesee—Orion
S S.	Westerian—City of Montreal
S S.	Westoil—Kaministiquia
S S.	Wethersfield—Westmount
Bge.	Whale—Ann Arbor No. 2 (Car Ferry)
S S.	Wilson, Mathew—Fayette
S S.	Windsor—Iroquois
S S.	Winnipeg—Juniata
Bge.	Woodlands—Middlesex
S S.	Zillah—Edward Smith

DAILY WAGE TABLE.

	$190.00	$170.00	$155.00	$140.00	$126.00	$110.00	$100.00	$85.00	$80.00	$75.00	$70.00
½	3.17	2.83	2.58	2.33	2.08	1.83	1.67	1.42	1.33	1.25	1.17
1	6.33	5.67	5.17	4.67	4.17	3.67	3.33	2.83	2.67	2.50	2.33
2	12.67	11.33	10.33	9.33	8.33	7.33	6.67	5.67	5.33	5.00	4.67
3	19.00	17.00	15.50	14.00	12.50	11.00	10.00	8.50	8.00	7.50	7.00
4	25.33	22.67	20.67	18.67	16.67	14.67	13.33	11.33	10.67	10.00	9.33
5	31.67	28.33	25.83	23.33	20.83	18.33	16.67	14.17	13.33	12.50	11.67
6	38.00	34.00	31.00	28.00	25.00	22.00	20.00	17.00	16.00	15.00	14.00
7	44.33	39.67	36.17	32.67	29.17	25.67	23.33	19.83	18.67	17.50	16.33
8	50.67	45.33	41.33	37.33	33.33	29.33	26.67	22.67	21.33	20.00	18.67
9	57.00	51.00	46.50	42.00	37.50	33.00	30.00	25.50	24.00	22.50	21.00
10	63.33	56.67	51.67	46.67	41.67	36.67	33.33	28.33	26.67	25.00	23.33
11	69.67	62.33	56.83	51.33	45.83	40.33	36.67	31.17	29.33	27.50	25.67
12	76.00	68.00	62.00	56.00	50.00	44.00	40.00	34.00	32.00	30.00	28.00
13	82.33	73.67	67.17	60.67	54.17	47.67	43.33	36.83	34.67	32.50	30.33
14	88.67	79.33	72.33	65.33	58.33	51.33	46.67	39.67	37.33	35.00	32.67
15	95.00	85.00	77.50	70.00	62.50	55.00	50.00	42.50	40.00	37.50	35.00
16	101.33	90.67	82.67	74.67	66.67	58.67	53.33	45.33	42.67	40.00	37.33
17	107.67	96.33	87.83	79.33	70.83	62.33	56.67	48.17	45.33	42.50	39.67
18	114.00	102.00	93.00	84.00	75.00	66.00	60.00	51.00	48.00	45.00	42.00
19	120.33	107.67	98.17	88.67	79.17	69.67	63.33	53.83	50.67	47.50	44.33
20	126.67	113.33	103.33	93.33	83.33	73.33	66.67	56.67	53.33	50.00	46.67
21	133.00	119.00	108.50	98.00	87.50	77.00	70.00	59.50	56.00	52.50	49.00
22	139.33	124.67	113.67	102.67	91.67	80.67	73.33	62.33	58.67	55.00	51.33
23	145.67	130.33	118.83	107.33	95.83	84.33	76.67	65.17	61.33	57.50	53.67
24	152.00	136.00	124.00	112.00	100.00	88.00	80.00	68.00	64.00	60.00	56.00
25	158.33	141.67	129.17	116.67	104.17	91.67	83.33	70.83	66.67	62.50	58.33
26	164.67	147.33	134.33	121.33	108.33	95.33	86.67	73.67	69.33	65.00	60.67
27	171.00	153.00	139.50	126.00	112.50	99.00	90.00	76.50	72.00	67.50	63.00
28	177.33	158.67	144.67	130.67	116.67	102.67	93.33	79.33	74.67	70.00	65.33
29	183.67	164.33	149.83	135.33	120.83	106.33	96.67	82.17	77.33	72.50	67.67
30	190.00	170.00	155.00	140.00	125.00	110.00	100.00	85.00	80.00	75.00	70.00

Days	$67.50	$65.00	$62.50	$60.00	57.50	$55.00	$50.00	$45.00	$40.00	$35.00	$31.50	$30.00
½	1.13	1.08	1.04	1.00	.96	.92	.83	.75	.67	.58	.53	.50
1	2.25	2.17	2.08	2.00	1.92	1.83	1.67	1.50	1.33	1.17	1.05	1.00
2	4.50	4.33	4.17	4.00	3.83	3.67	3.33	3.00	2.67	2.33	2.10	2.00
3	6.75	6.50	6.25	6.00	5.75	5.50	5.00	4.50	4.00	3.50	3.15	3.00
4	9.00	8.67	8.33	8.00	7.67	7.33	6.67	6.00	5.33	4.67	4.20	4.00
5	11.25	10.83	10.42	10.00	9.58	9.17	8.33	7.50	6.67	5.83	5.25	5.00
6	13.50	13.00	12.50	12.00	11.50	11.00	10.00	9.00	8.00	7.00	6.30	6.00
7	15.75	15.17	14.58	14.00	13.42	12.83	11.67	10.50	9.33	8.17	7.35	7.00
8	18.00	17.33	16.67	16.00	15.33	14.67	13.33	12.00	10.67	9.33	8.40	8.00
9	20.25	19.50	18.75	18.00	17.25	16.50	15.00	13.50	12.00	10.50	9.45	9.00
10	22.50	21.67	20.83	20.00	19.17	18.33	16.67	15.00	13.33	11.67	10.50	10.00
11	24.75	23.83	22.92	22.00	21.08	20.17	18.33	16.50	14.67	12.83	11.55	11.00
12	27.00	26.00	25.00	24.00	23.00	22.00	20.00	18.00	16.00	14.00	12.60	12.00
13	29.25	28.17	27.08	26.00	24.92	23.83	21.67	19.50	17.33	15.17	13.65	13.00
14	31.50	30.33	29.17	28.00	26.83	25.67	23.33	21.00	18.67	16.33	14.70	14.00
15	33.75	32.50	31.25	30.00	28.75	27.50	25.00	22.50	20.00	17.50	15.75	15.00
16	36.00	34.67	33.33	32.00	30.67	29.33	26.67	24.00	21.33	18.67	16.80	16.00
17	38.25	36.83	35.42	34.00	32.58	31.17	28.33	25.50	22.67	19.83	17.85	17.00
18	40.50	39.00	37.50	36.00	34.50	33.00	30.00	27.00	24.00	21.00	18.90	18.00
19	42.75	41.17	39.58	38.00	36.42	34.83	31.67	28.50	25.33	22.17	19.95	19.00
20	45.00	43.33	41.67	40.00	38.33	36.67	33.33	30.00	26.67	23.33	21.00	20.00
21	47.25	45.50	43.75	42.00	40.25	38.50	35.00	31.50	28.00	24.50	22.05	21.00
22	49.50	47.67	45.83	44.00	42.17	40.33	36.67	33.00	29.33	25.67	23.10	22.00
23	51.75	49.83	47.92	46.00	44.08	42.17	38.33	34.50	30.67	26.83	24.15	23.00
24	54.00	52.00	50.00	48.00	46.00	44.00	40.00	36.00	32.00	28.00	25.20	24.00
25	56.25	54.17	52.08	50.00	47.92	45.83	41.67	37.50	33.33	29.17	26.25	25.00
26	58.50	56.33	54.17	52.00	49.83	47.67	43.33	39.00	34.67	30.33	27.30	26.00
27	60.75	58.50	56.25	54.00	51.75	49.50	45.00	40.50	36.00	31.50	28.35	27.00
28	63.00	60.67	58.33	56.00	53.67	51.33	46.67	42.00	37.33	32.67	29.40	28.00
29	65.25	62.83	60.42	58.00	55.58	53.17	48.33	43.50	38.67	33.83	30.45	29.00
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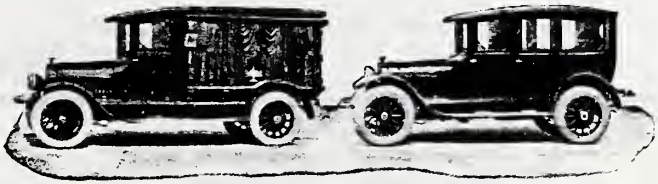

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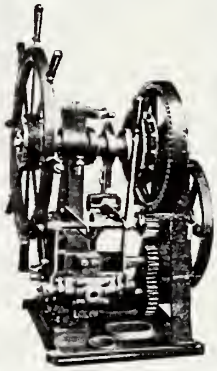

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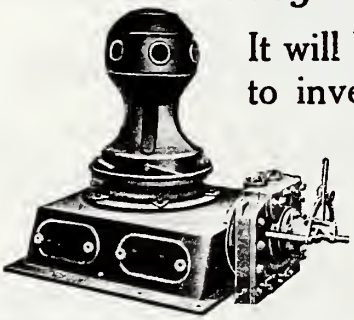

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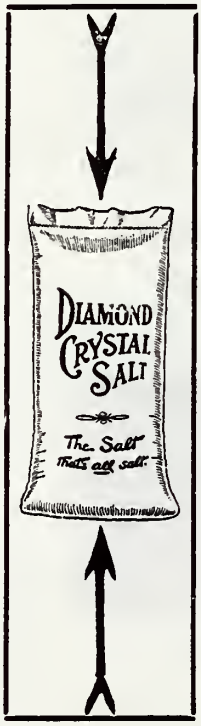

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Index to Advertisers

AMHERSTBURG, ONT.

Mullen Coal Co., Vessel Fuel 322

ASHLAND, WIS.

Ashland Steam Lanndry 277
Marx, S., Original Marine Meat Market, Meats, Groceries and General Ship Supplies 277

ASHTABULA, O.

Burrill, E. H., Meats and Ice..... 277
Carroll & Jerauld, Hard Coal, Charcoal 279
Cheney Sons Company, The P. H., Grocers and Ship Chandlers 278
Devney, Henry J., Ship Building and General Repairs 278
Electric Laundry Co., The 278

ASHTABULA HARBOR, O.

Miller, E. S., Groceries and Crockery 277
Rennick, Tom J., Meats and Ice.... 278

BAY CITY, MICH.

Walter's Department Store, Clothing, Dry Goods, Groceries and Meats 296

BUFFALO, N. Y.

Adam & Co., J. N., Marine Supplies 295
Adam, Meldrum & Anderson Co., Furniture, Linoleums, Rugs, Curtains, etc. 282
Allen Carpet Cleaning Co. 286
Baker & Co., Howard H., Ship Supplies 291
Beals, McCarthy & Rogers, Iron, Steel, Hardware, Tools & Supplies 287
Bell and Son, James, Beef, Lamb and Pork 293
Brainard, Harry P., Accident and Health Insurance 294
Brown & Co., Lake Transportation, 293
Brown, Ely and Richards, Proctors in Admiralty 283
Buffalo Marine Construction Corporation, Boiler Engine and Ship Repairs 292
Connelly Bros., Ship Chandlers.... 287
Cowles' Shipyard Co., Boat Building, Boiler Repairs and Electric Welding 288
Desbeckers', Men's Clothing 289
Devoe & Raynolds Co., Inc., Paint and Varnish 291
Ellicott Club 293
Failing Optical Co., Inc. 290
Frontier Engine Works, Marine Repairing 284
Gehm, John, Meats 283
Gunn, P. J., Grocer 293
Hand and Johnson, Tug Line 280
Hutchins Marine Laundry 285
Interlake Store, Engineers' Supplies 281
Kinnear & Son, James, General Blacksmiths 288
Kleinhans Co., The Clothiers 284
Kropman & Greenberg, Merchant Tailors 285
Lameus, Enos, Co., Inc., The, Furniture 286
McCarthy & Son, Jerry, Ship Chandlers 287
Moore, H. B., Men's Furnishings.. 296
Oldman Boiler Works, The, Electric Welding 279
Plant Tailoring Co. 292
Sievers, W. H., Florist 288
Sutton, George, Printer 288
Tashenberg Bros., Boiler Works 279
Trout Co., H. G., King Iron Works, Engines, Propeller Wheels 290
Whitman Machine Co., Machinists... 279
Wright, H. S., Steamboat and Engineers' Supplies 287

CHICAGO, ILL.

Anderson, Gilbert, Ship Builder.... 298
Banner, Thomas B., Steamboat and Vessel Work, Engineers' Supplies 302

Carpenter and Co., Geo. B., Ship Chandlers and Sail Makers 297
Central Shipping Co., Vessel, Freight & Ins. Agents 301
Corbett Boiler & Tank Co., Geo. E., Boiler Makers 303
Cringle, Fred, Laundry 296
Dunham Towing & Wrecking Co., Electrical Welding ....Inside Fly Leaf
Ferguson, Alex, Undertaker and Embalmer 299
Hettler Lumber Co., Herman H., Lumber & Kiln Dried Hardwood Flooring 395
Hirsch & Co., J. H., Uniforms & Caps 301
Lenert, Joseph, Groceries, Meats, Milk, Ice and Marine Supplies.. ..... Front Fly Leaf
Marine Iron Works, Marine Steam Engines 303
Mitchell & Son, A. F., Electric Welding, Boiler Repairs 300
New Kentucky Coal Co., Steamboat Fuel 304
Osborn and Co., Marine Insurance Brokers 300
Pick and Co., Albert, Ship Furnishings 299
Pratt Co., Henry, Marine Boiler and Engine Repairs 300
Rosner Boiler Works 302
State Bank of Chicago 298

CLEVELAND, O.

American Ship Building Co., The Ship Builders 308, 313
Brogan, J. P., Grocer, Marine Supplies 306
Citizens Savings and Trust Co., The 306
Cleveland Plain Dealer, Marine News 309
Cleveland Trust Co., The..... 315
Glidden Company, The, Marine Paints and Varnishes 319
Goulder, White & Garry, Law Offices 307
Hanna and Co., M. A., Vessel Fuel 310
Harvard Mfg. Co., The, Liquid Soap, Metal Polish, etc. 311
Hausheer & Sons Co., The, Ship Supplies 316
Holding, Masten, Duncan & Leckie, Law Offices 304
Kelley and Cottrell 305
Leopold Furniture Co., The Henry, Furniture, Steamboat Furniture.. 304
Lorain Coal & Dock Co., The, Branch Office, 708 Rockefeller Bldg. 307
Monck, S. J., Railroad and Commercial Printers 318
Office Supply & Printing Company, The 304
Pickands, Mather & Co., Steamboat Fuel 317
Prindiville & Sons, John, Lake Transportation and Marine Insurance 300
Reliance Life Ins. Co., of Pittsburgh 305
Upson-Walton Co., The, Outfitters of Vessels 314
Valley Camp Coal Co., The 312, 320

DETROIT, MICH.

Berry Bros., Luxeberry Spar 325
Dime Savings Bank 323
Edwards and Co., H. D., Vessel Outfitters 327
Erdman, Joseph, Groceries, Meats.. 327
Eureka Vacuum Cleaner Co., The... 326
G. and G. Grocery Co., Groceries, Meats, Fruits and Vegetables 327
Goss Co., The J. C., Sailmakers, General Vessel Outfitters, Flags 327
Great Lakes Engineering Works, Ship and Engine Builders 325
Hickey's, Outfitters, Men's Wearing Apparel 326
Kretzschmar, L. J., Groceries, Meats, Marine Supplies and Fresh Vegetables 324
Miller, J., Groceries and Provisions 328
Smith and Yendall, Groceries, Fruits, Vegetables and Meats 328
United Fuel & Supply Co. 324
Weisgerber-Lowther Paint Co. 321

DULUTH, MINN.

American Exchange National Bank of Duluth Oldest Bank at the Head of the Lakes 330
Aune & Son, P. L., Fresh and Cured Meats 332
Duluth Marine Supply Co., The, Groceries, Meats, Ice, Milk and Ship Chandlery 334
First Nat. Bank, The 332
Henricksen, Jewelers, Inc., Diamonds Watches, Jewelry, Silverware 334
Hotel Lenox, Ribenack Bros., Props. 329
Marine Iron & Ship Building Co., Boilermakers, Shipbuilders, Machinists and Foundrymen 333

McCue, Guy W., Prop., Fifth Avenue Cigar Store 331
Realty Service Agency, Real Estate, Loans and Insurance, Home Builders 330
Thompson, Captain Horace H., Diver 335
Twinports Clothing Co., Clothing and Furnishings 329
Wahl, John, Candy Co., Wholesale Candy Manfrs. 328

ERIE, PA.

Beckman, Wm., Groceries, Provisions, Dairy Products 336
Board of Trade Cigar Store, The, Joseph Vanderyaclt, Prop. 336
Meiser, Fred C., Marine Meat Market 336

FERRYSBURG, MICH.

Johnston Bros., Boiler Makers 338

FORT WILLIAM, ONT.

North Shore Supply Co., Ltd., Groceries, Meats, Ship Chandlery 337
Wolvin, J. W., Vessel Agent 337

GARY, IND.

Tittle Bros. Packing Co., Meats, Groceries, Fruits, Vegetables 338

GODERICH, ONT.

"Marine Bill," The Grocer, W. J. Powell 339

GRAND HAVEN, MICH.

Dake Engine Co., Steering Gears, Capstans, Windlasses 340

GREEN BAY, WIS.

Denesseen Grocery Co. 339
Bur Grocery Co., Butter, Eggs, Vegetables 339
Stenger & Son, George, Marine Meat Market 339

HAMILTON, ONT.

Bank of Hamilton 338

HANCOCK, MICH.

Baer Brothers, Meats, Groceries, Milk, Ice 341

HOUGHTON, MICH.

Van Orden Co., The M., Fuel Dock 341

HUBBELL, MICH.

Frenette Bros., Meats and Groceries 342
Opal, Henry, Groceries, Meats and Marine Supplies 342

HURON, O.

Cook, W. E., Marine Grocer 335
Naegele, Geo. A., Marine Grocer 335

INDIANA HARBOR, IND.

Indiana Harbor National Bank 343

LITTLE CURRENT, ONT.

Ritchie, W. D., Groceries, Marine Supplies 343

LORAIN, O.

Spademan & Co., Groceries, Meats and Ship Supplies 343

MANITOWOC, WIS.

Guse Lumber Co., Mill Work, Wall Board 349
Jack Kraemer Cafe 348
Manitowoc Building Supply Co., Ship Cabin Builders 349
Manitowoc Iron & Metal Co., Iron and Metal 347
Manitowoc Junk & Second Hand Co., Alfred Muchin, Prop. 347
Manitowoc Savings Bank 344
Manitowoc Ship Building Co., Shipbuilders 345
Rathsack & Sons Company, W., Gen'l Hardware 349
Stangel, J. J., Wholesale Hardware, etc. 347
Streich Bros., Steam Laundry 348
Torrison Company, O., Groceries and Provisions, Dry Goods, etc. 346
Union Meat Market, A. J. Chermak, Prop. 348
Up-To-Date Grocery, Zaczek & Bonin, Props. 347

MARINE CITY, MICH.

Bower, Wm., Furniture & Funeral Director 354
Crowley, W. H., Ford and Taxi Service 352

Doecks & Jones, Hardware, Plumbing & Heating 353
Marine Savings Bank, The 353
Liberty National Bank, The 352
McLouth, Sydney C., General Shipbuilding and Repairing 351
Scott Brothers, Hardware 350
Smith's, H. A., Groceries 350
Zimmerman Bros., Big Hardware, Oils 353

MARQUETTE, MICH.

Smith and Son, Jacob, Groceries .. 354

MIDLAND, ONT.

Jeffery & Sons, Ltd., F. W., Hardware 350

MILWAUKEE, WIS.

Busch Co., J. C., Marine Repairs.. 356
Daly, George B., Meat Dealer 356
Globe Tailoring Co. 359
Independent Oil & Grease Co., Oils, Greases, Boiler Compound 357
Joys Bros. Co., Ship Chandlers..... 354
Mertes-Miller Co., The. Boilers, Tanks, Sheet Iron Work 358
Milwaukee Tug Boat Line 355
Murphy Boiler Co., Marine and Stationary Boilers 356
O'Neil Oil & Paint Co., Lubricating Oils and Greases 358
Palace Laundry Co. 358
Reliance Laundry & Cleaning Co... 359
Schlosser, John H., Grocer 359
Sheriffs' Mfg. Co., Propeller Wheels and Propeller Blades 398
Tegtmeyer, Watches and Clocks..... 356
Vance & Joys Co., Vessel Agts 357

NEW YORK, N. Y.

Appel & Co., S., Yachting and Naval Reserve Uniforms 360
Whitlock Cordage Co., Manila Rope ..... Inside Front Cover
Wilson, O. C. & K. R., Ship Chandlery & Engineers' Supplies 360

OGDENSBURG, N. Y.

Boyer, F., Grocery and Market 360
Friedman & Fisher, Clothes 361
Hackett's, Ship Chandlery & Marine Hardware 360
Hall Coal Corporation, George, Fuel 362
Ogdensburg Machine Co., Inc., The, Nash Imp. Steering Engine 361
O'Connor-Algie Company, Cigars & Tobacco 361
Ogdensburg Coal & Towing Co., Lake Erie Fuel Coal 361
St. Lawrence Marine Railway Co., Vessel Repairs 362
Williams Drug Co., Drugs and Medicines 363

OSWEGO, N. Y.

Parsons, John S., Ship Chandler and Sail Maker 363

PORT HURON, MICH.

Boyce Hardware Co., Boat Supplies. 363
Crawford, A., Machine Tamped Blocks 364
Goldman, H., Boat & Launch Supplies 364
Howard Hayman Furniture Co., The: Furniture, Carpets, Rugs, Linoleums, Phonographs, Etc..... 367
Kerr Lumber Co., Building Materials 364
Pioneer Boiler Works, Bruce M. Wright, Mgr., Electric Welding and Boiler Making 363
Robeson Preserve Products Co. 365
United Iron & Metal Co., Scrap Iron 364

RACINE, WIS.

Morgansen, Herman S., Fancy Groceries 367

ST. CLAIR, MICH.

Commercial & Savings Bank 367
Currier, Capt. Frank, Ferryman 368
Diamond Crystal Salt Co., Diamond Crystal Salt 366

SHEBOYGAN, WIS.

Heinecke & Kaufmann, Meats, Ice, Milk 369
Jung Co., J. & W., Groceries and Provisions 368
Prange Company, H. C., General Purveyors 369

SOUTH CHICAGO, ILL.

Ahern, James J., Buffet 372
Anderson and Drew, Clothing and Furnishings 376
Anderson Bros. Co., Groceries, Meats, etc. 379

Bacon & Co., A. A., Furniture, Carpets, etc. 373
Behnke, E. A., Groceries, Meats, Provisions 370
Birndorf & Schwartz, Tailors and Clothiers 371
Black, James A., Hardware, Paints, Sheet Metal Work 381
Brading, G. E., Boiler Makers and Electric Welders 371
Cave, C. R., General Merchandise.. 374
Gassman Bros., Clothes 373
Great Lakes Supply Co., Marine Supplies 378
Hausler Lumber & Coal Co. 375
Heinsen, H. A., Kodaks and Supplies and Stationery 372
Kraft Shipyard & Dry Dock, General Ship Repair 376
Lake Shipbuilding Co., The, Ship Repairs 375
Lundgren, Oscar, Buffet 371
Oppenheimer, Max, Union Hatter.. 371
Perman, Wm., Men's Tailoring..... 382
Riverside Iron Works, General Machinists and Founders 374
South Chicago Laundry Co., Steam Laundry 372
South Chicago Marine Supply Co., Inc., Meats and Groceries 377
South Chicago Savings Bank..... 380
Stuart, Walter, Jeweler 373
Todt Co., The E. G., Engineers and Machinists 372

STURGEON BAY, WIS.

Shimmel, The Grocer 369
Universal Shipbuilding Co., Shipbuilders and Contractors 370

SUPERIOR, WIS.

Benson Electric Co. 383
Berthiaume Bros., Groceries, Meats, Ice 384
Boll-Scoon Co., Groceries, Meats, Marine Supplies 385
Community Savings Bank 390
DeFrehn's Pharmacy 389
Enterprise Foundry Co., Castings .. 389
Hanitch & Hartley, Lawyers..... 388
Lenroot-Buckman-Flinn Agency, The, Loans 388
Northwestern Oil Co., Oils and Greases 382
Old Reliable Bank of Commerce, The 389
Pease Hardware Co. 387
Speakes Lime and Cement Co. 386
Superior Iron Works Co. 387
Superior Sash and Door Co. 386
Yale Laundry, Launderers and Dry Cleaners 385

TOLEDO, O.

Hardy & Dischinger Co., The, Packing, Oils, Paints, etc. 390
Richards, Chas. G., Tin, Copper & Sheet Metal Worker 393
Tiedtke Bros. Co., The, Marine Supplies 391
Toledo Foundry and Machine Co., The, Machinists and Founders ... 393
Toledo Shipbuilding Co., The 392
Wilcox Co., The M. I., Vessel Supplies, Rope, Paints, Sail Loft..... 394

WAUKEGAN, ILL.

Chicago Market, Meats 396
Herman's Sons, Geo., Marine Grocers 393

Table of Contents

Title Page i
Grand President's Flag ii
Association Pennant ii
Officers for 1920 iii
Members of Grand Lodge iv
Grand Lodge Officers v
Past Grand Presidents vi
Storm Signals vii
Canadian Storm Warnings viii
Addresses of Secretaries 4
Aims and Objects, International Ship Masters' Association 1
A Letter to Members of the Association 5
Appointments of Masters 166-174
Approximate Weight and Strength of Manila Rope 80
Association Headquarters 4
Azimuths 61-63
Bridge Signals 70, 71
Canada's St. Lawrence Route Canals 60
Canals from Lakes to Atlantic 54-57
Car Ferries of the Great Lakes 256, 257
Carrying Members as Mates 68
Checking Up Conrses 57-59
Coal Docks of the Great Lakes 187-205
Comparative Freight Rates 78, 200, 201
Compass Courses and Distances 112-114
Compass, The 73-75
Conversion of Geographical into Nautical Miles 66
Conversion of Nautical into Geographical Miles 67
Daily Wage Table 274, 275
Death Claims Paid, Year 1919 51
Dry Docks of the Great Lakes 86, 87
Detroit River Postal Service 100, 101
Early History of International Ship Masters' Association 2, 3
Galvanized Steel Wire Hawsers 81
General Dimensions of Lake Vessels 212-256
In Memory of Deceased Brothers 47-50
Index to Advertisers 352
Life-Saving Stations on the Lakes 52, 53
List of Active Members 6-28
List of Members in Good Standing 45
Members Arranged According to Pennant Numbers 32-43
Names and Addresses of Associate Members 29, 30
Names and Addresses of Honorary Members 30, 31
Names of Boats and Their Captains 175-186
Obituary 46
Officers of Subordinate Lodges 44
Ordinance Regulating Harbor and City Bridges of Toledo 72

Our Advertisers 276
Owners or Managers 119-165
Passenger Boats of the Great Lakes 258-268
Pilot's Ready Reckoner 90-99
Rules and Regulations for Navigating 101-110
Rules for Lights 118
Schedule of Running Time St. Mary's River 111
Signals—Deck and Engine Room 68, 69
Steamship Corporations 206-211
Stud Link Anchor Chain 82
Table for Converting Compass, Etc. 76, 77
Table of Barometer Readings 65
To Find a Ship's Distance 116, 117
Total Amount of Assessments 45
United States Hydrographic Office 68
Use of the Bearing Indicator 114-116
Vessel Time Card 88, 89
Vessels Whose Names Have Been Changed 269-273
Wheel Chains 83-85
Wind Compass to a Low of Cyclone 64
Wind Signals on Lake Superior 69

Edward Hines, Pres.
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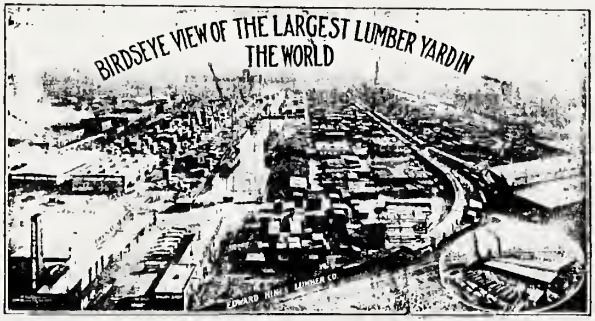

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Tel. Evanston' 42, G. C. LAMONT, Mgr.

Highland Park Branch Yard, Highland Park, Ill., Tel. 'Highland Park' 21
C. R. DENNETT, Mgr

Glen View Branch Yard, Glen View, Ill.
Tel. 'Glen View' 4, M. SESTERHEN, Mgr.

Rosehill and Edgewater Branch Yard
Balmoral Ave. and C. & N. W. Ry Track, Tel. 'Edgewater' 3098, GEO. MOHRING, Mgr.

Hawthorne & Morton Park Branch Yard
49th Ave and C. B. & Q. R. R. (opp Western Electric Wks.) Phones Morton Park 6-toll and Canal 349, Hawthorn, Ill.
F. V. VONESH, Mgr

Austin Branch Yard Cor. Lake St. and 50th Ave Tel. 'Austin' 23
CHAS T. CLARK, Mgr.

Garfield Park Branch Yard, West 12th St and 47th Ave. Tel., 'Austin' 442
ALBERT I. FIFIELD, Mgr.

Oak Park and River Forest Branch Yard, Tel 'River Forest' 1881, Madison St. and Forest Ave., A. C. DONNELL, Mgr.

Irving Park Branch Yard, 3830 Milwaukee Ave., Tel. 'Irving Park' 172
L. C. J. SCHROEDER, Mgr

FRANK ANDREE, Mgr.
Melrose Park Branch Yard, Melrose Park, Ill., Tel. "Melrose Park" 730